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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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UNITED STATES OF AMERICA,

        v.   S2 17 Cr. 548 (JMF)

JOSHUA ADAM SCHULTE,

              Defendant.   Trial

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                                  New York, N.Y.
                                  September 12, 2023
                                  9:05 a.m.

Before:

                  HON. JESSE M. FURMAN,

                                  District Judge
                                  -and a jury-

                      APPEARANCES

DAMIAN WILLIAMS
    United States Attorney for the
    Southern District of New York
BY: MICHAEL D. LOCKARD
    NICHOLAS S. BRADLEY
    DAVID W. DENTON JR.
    Assistant United States Attorneys

CESAR de CASTRO
SHANNON McMANUS
    Attorney for Defendant

Also Present:

Kayla Collins, Paralegal Specialist
Kimberly Tabares, Paralegal

1   (Trial resumed; jury not present)

2   THE COURT: All right. Good morning. Mr. Schulte's

3   not here yet. We're waiting on the marshals. I just wanted to

4   get started as soon as he got here, so figured I'd come out.

5   When he's here, we'll proceed.

6   MR. DENTON: Your Honor, we wanted to alert the Court

7   —— we've spoken with Ms. Smallman and with defense counsel ——

8   when the defendant gets here, we just want to make a note on

9   the record about some contact that one of the jurors had with a

10   couple of FBI agents this morning.

11   THE COURT: Yes, I'm aware and was planning to raise

12   that and two other matters before we get started with openings.

13   All right. Mr. Schulte has arrived, so give him a

14   minute to settle in, and then we can deal with our preliminary

15   matters.

16   All right. First, let's make a record or discuss what

17   happened with the juror.

18   Mr. Denton.

19   MR. DENTON: Yes, your Honor. So I apologize. I'm

20   not certain which juror number it was, but this morning one of

21   the jurors was present in the hallway outside the courtroom.

22   While there, there were two FBI agents, including our first

23   witness, Special Agent Evanchec, and another FBI agent who's

24   going to be here as a spectator. Neither of them was aware

25   that the woman was a juror.

1   I gather that the woman spoke with Special Agent

2   Evanchec to ask if there was a way to the jury room. He told

3   her that the door in the hallway was alarmed. She then

4   identified herself as a juror, and he stopped speaking with

5   her. She then approached the other FBI agent who was there

6   and, I gather, asked a similar question, similar results.

7   A short time later, as we were coming over to the

8   courtroom, Special Agent Lai was pushing the cart and was a

9   little bit ahead of us, and the juror asked him for directions

10   to the bathroom. He knew she was a juror and simply apologized

11   and moved on.

12   We've alerted defense counsel and Ms. Smallman to the

13   contact, and that's the extent of what happened this morning.

14   THE COURT: Not ideal, particularly since I had

15   instructed them not to come in that way. But that being said,

16   they're here for their second day, and it is a little confusing

17   where to go and such. So I'd, at a minimum, be inclined to

18   just remind them that, number one, they should go directly to

19   the jury room. Number two, that they should —— that you all

20   are not permitted to have any contact with them. And out of an

21   abundance of caution if they have any questions, they should

22   either ask Ms. Smallman, Mr. Miller, or a uniformed officer,

23   court security officer, and not talk to anyone else, just to

24   make sure they're not speaking to somebody involved in the

25   case.

1   Any objections to that from the government?

2   MR. DENTON: No, that sounds fine, your Honor.

3   THE COURT: All right. Mr. de Castro?

4   MR. de CASTRO: That's fine, Judge.

5   THE COURT: Doesn't sound like there was any

6   substantive communication but not ideal, but doesn't sound like

7   anything prejudicial occurred.

8   MR. de CASTRO: No issues, Judge.

9   THE COURT: OK. Number two, Mr. de Castro, any issues

10 with meeting with Mr. Schulte either yesterday or this morning?

11 I gather there was some issue with you getting locked out

12 yesterday.

13   MR. de CASTRO: That's right. Other than that, no.

14 And, thankfully, I found my way through this —— through the

15 courtroom. My card, as a CJA counsel, usually unlocks all

16 those doors to get into the marshals, and for some reason it

17 does not lock —— unlock one inner door, which is where we were

18 sort of trapped, but I came through —— there was nobody

19 anywhere, but I came through no problem.

20   THE COURT: All right. Just to be clear, you didn't

21 go through the jury room, correct?

22   MR. de CASTRO: Did not go through the jury room. I

23 went through the robing room. I did see the presence of the

24 jury room. It's marked on the wall, anyway. I did not want to

25 go anywhere near there, and we also didn't have any way of

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1   getting out. So I walked through the door, through the Court's

2   robing room —— there's that construction back there —— and I

3   came in here.

4   THE COURT: All right. I don't know if you can speak

5   with the marshals, but if there's some way to figure out to

6   ensure that you have the means of getting out without the need

7   to go through the robing room, that would, obviously, be

8   preferable.

9   MR. de CASTRO: On the list.

10   THE COURT: All right. The last item on my agenda is

11   just the limiting instruction that I received. I'm pleased

12   that you were able to reach agreement. I had two sort of

13   points of clarification, a reminder and then one substantive

14   comment.

15   One is just a reminder that our plan, I take it, is

16   for the government to elicit a verbal description of the video.

17   That is not going to be played for the public, is that correct?

18   MR. DENTON: Yes, your Honor.

19   THE COURT: Number two, the language of this says, "I

20   want to remind you that the defendant is not on trial in

21   connection with the erotica." That suggests that I've already

22   instructed them to that effect. So my intention, I assume it

23   was contemplated, is that when the issue of erotica comes up,

24   I'll give a limiting instruction to the jury that erotica is

25   not illegal, he's not charged with that, etc.

1   Is that correct?

2   MR. DENTON: So, your Honor, I think that's fine. I

3   think it would also be fine to omit the reminder language and

4   simply at the point, when the Court gives that instruction,

5   simply inform them at that point that the defendant is not on

6   trial for that and not charged with it and it's not illegal.

7   THE COURT: All right. I guess I'll ——

8   MR. DENTON: Simply omit the reminder language.

9   THE COURT: I guess I'll play it by ear and see what

10   the testimony is about erotica and whether I think a limiting

11   instruction earlier is appropriate; and if so, then I'll remind

12   them, and if not, I'll tell them.

13   MR. de CASTRO: I think it's that first slide with

14   that witness that they mention it, your Honor. So I think it

15   might make sense to just give that language that's in the

16   proposed instruction once and then just a reminder when it ——

17   at the later point when the images are shown.

18   THE COURT: Then my only substantive

19   comment/suggestion is I think it's important to explicitly say

20   that the jury may not consider the evidence relating to child

21   erotica as evidence of bad character or propensity to commit

22   the crimes of which Mr. Schulte is charged, and then say

23   otherwise they may consider it as they would any other

24   evidence. But I think that's sort of the key point underlying

25   404(b), and it ought to be in here.

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1   Any objection from the government?

2   MR. DENTON: No, your Honor.

3   THE COURT: Mr. de Castro?

4   MR. de CASTRO: No, Judge. That was a point of

5   discussion between the government and us. That's fine.

6   THE COURT: Great. Anything else to discuss before we

7   bring the jury out, swear them, and start with openings?

8   MR. de CASTRO: Not from us.

9   MR. DENTON: Not from the government either, your

10   Honor.

11   THE COURT: Great. We will get the jury and go from

12   there.

13   (Continued on next page)

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1   (Jury present)

2   THE COURT: You may be seated. Good morning. Welcome

3   back, ladies and gentlemen.

4   First, let me start by thanking you all for being here

5   at or just before 9:00. One of you, I know, called to say you

6   may be running late, and very much appreciate that. Bottom

7   line is I love when you guys are on time and we can make the

8   most of our time together. Also very pleased to hear that

9   breakfast was there. I hope you guys enjoyed that and it

10   helped get the day started.

11   I wanted to remind you of a couple things. I know

12   it's day two here and it's a little complicated to navigate

13   yourself around the courthouse. Just a reminder, you should go

14   directly to the jury room and avoid the front hall and front

15   entrances to the courtroom. I know one of you got a little

16   lost in the process, and that's fine. If you have any issues

17   or questions, just ask Ms. Smallman to make sure you know where

18   you're supposed to go. And in the event you do need guidance,

19   I would say just ask Ms. Smallman or Mr. Miller or find a court

20   security officer who's in a uniform, just to make sure you

21   don't talk to somebody connected with one or other side in the

22   trial.

23   Again, they've been instructed not to have any

24   communication with you. So they don't want to be rude to you,

25   but they really can't speak with you. So if you can avoid

1   talking to someone who might be involved in the case, that

2   would be ideal.

3   We will start this morning, as I mentioned yesterday,

4   with the parties' opening statements beginning with the

5   government, and then I expect the defendant to also —— one of

6   the defendant's lawyers to give an opening statement. But just

7   a reminder, the government bears the burden at all times, so

8   the defendant doesn't need to do anything.

9   I also want to remind you that what they say in their

10   openings is not evidence. It's just a preview of what they

11   expect the evidence will be. It's very helpful in that regard,

12   but at the end of the day, the evidence is the testimony that

13   you'll hear from the witnesses, the exhibits that are admitted

14   into evidence, and any stipulations or agreements between the

15   parties. But I'll explain more about that later.

16   The first step we need to begin with, though, is to

17   formally swear you in as jurors in this matter. So at this

18   time I'd ask you to please rise and raise your right hand for

19   Ms. Smallman to either swear or affirm you.

20   (A jury of 12 and 2 alternates was impaneled and

21   sworn)

22   THE COURT: All right. You may be seated.

23   With that, we will begin.

24   Mr. Lockard.

25   MR. LOCKARD: Joshua Adam Schulte downloaded thousands

1   of pictures and videos showing the rape and sexual abuse of

2   children, children who were forced to pose naked and

3   graphically sexualized; children who were forced to perform sex

4   acts with grown men, with animals, with each other; children as

5   young as four and five years old, some even younger, some just

6   toddlers. These children should have been protected and

7   nurtured, but instead they were preyed upon. These horrifying

8   images are what the law calls child pornography, but they are a

9   permanent record of these young victims' trauma and abuse.

10   Joshua Schulte sought out these images of sexual abuse

11   for his own gratification. Schulte prowled foul corners of the

12   dark web in search of child pornography. Schulte made

13   bookmarks of his favorite online markets of child pornography.

14   Schulte downloaded thousands of these horrifying images, and he

15   kept them hidden on his computer beneath layer after layer of

16   encryption. And Schulte transported his child pornography,

17   bringing it from Virginia to New York.

18   Ladies and gentlemen, during this trial, you will see

19   and hear the evidence proving that the defendant committed

20   these crimes. Schulte received, he possessed, and he

21   transported child pornography. During this trial, you'll learn

22   about the defendant's computer expertise; that he's a

23   technology enthusiast and built his own computers; that he has

24   a degree in electrical engineering; that, after graduating, he

25   worked in computer programming jobs in Virginia and then here

1   in New York City.

2   An FBI agent will explain to you that in March of

3   2017, the FBI searched Schulte's Manhattan apartment, and there

4   they found Schulte's computers, computers that he had built

5   himself and brought to New York. You'll also learn that

6   Schulte spoke to the FBI about his computers, and Schulte

7   identified one in particular as his personal everyday desktop,

8   a computer that Schulte had built, a computer that Schulte

9   didn't share access with with anyone. You'll hear that Schulte

10   admitted that he used encryption on his computer, encryption

11   designed to hide those files from others, encryption that had a

12   password, a password Schulte admitted that he didn't share with

13   anyone.

14   You'll also hear how Schulte described the files that

15   he had encrypted. Schulte told the FBI: It's just porn. I

16   encrypt my porn. You'll learn from an FBI computer scientist

17   how the FBI was able to decrypt Schulte's computer, encryption

18   that required not just one password but several. The FBI was

19   able to decrypt Schulte's computer and open those encrypted

20   files using passwords found on Schulte's own cell phone,

21   personal passwords that Schulte used for his online banking and

22   his email account, passwords he used for his Uber and his

23   DoorDash.

24   And you'll learn what the FBI found. When the FBI

25   decrypted Schulte's computer using those passwords found on

1   Schulte's cell phone, they found the files that Schulte had

2   called his porn. It was child pornography, thousands of the

3   kinds of horrific videos and pictures that I described to you

4   earlier.

5   An FBI agent who specializes in investigating sex

6   crimes against children will describe those files to you and

7   what they show. It will be hard to hear. As part of your

8   duties as jurors, you will see some of those files for

9   yourselves. It will be difficult to watch. As Judge Furman

10   told you yesterday, it will be a small number of files and only

11   for a brief time, but you will have no doubt what those files

12   are, and you will understand the significance of the evidence

13   proving that Schulte sought them out.

14   You'll learn, for example, that many of these files

15   have file names that advertise their content, file names that

16   identify the young ages of the victims involved, file names

17   with terms that describe the kinds of sexual abuse that they

18   show, terms like "pedo," terms like "preteen hard core," terms

19   that are even more graphic descriptions of sexual acts.

20   You'll learn that these descriptive terms are used so

21   that people who are looking for child pornography can search

22   for it on the Internet, so that Schulte could find the kind of

23   child pornography that he was looking for.

24   Ladies and gentlemen, you'll also see computer

25   forensic evidence showing how the defendant obtained,

1   encrypted, and stored his child pornography. You'll learn that

2   the defendant used an anonymous Web browser called Tor to

3   search for child pornography on online markets hosted on the

4   dark web and on Russian websites.

5   You'll learn that Schulte organized his library of

6   child pornography. He used folders. Some folders were

7   dedicated to pictures and videos showing the abuse of

8   particular victims. One folder was just named "Kids." An FBI

9   computer scientist will explain to you the complex encryption

10   methods and computer tools that Schulte used to hide his child

11   pornography.

12   You'll see that Schulte stored his encrypted library

13   of child pornography on his personal computer, the same

14   personal computer that Schulte told the FBI no one else had

15   access to, the same personal computer where Schulte kept his

16   tax returns and his bank statements, where Schulte kept

17   pictures of his diploma and his driver's license. But while

18   Schulte kept his encrypted library of child pornography in the

19   same place as his other personal documents, he only hid the

20   materials that were the most important to him, the materials

21   that were the most dangerous to him if they were found.

22   Schulte only hid his picture and video libraries that contained

23   his child pornography beneath those layers of encryption.

24   You'll also see the forensic evidence showing that

25   Schulte did not just collect child pornography, but that he

1   watched it repeatedly.

2   Finally, ladies and gentlemen, you'll learn that in

3   November of 2016, Schulte transported his computer with his

4   encrypted library of child pornography from Virginia to

5   New York. Schulte changed jobs, and he moved hundreds of

6   miles. And when Schulte moved, he brought with him the things

7   that were the most important to him. He brought his computers

8   and he brought his child pornography. And after he got here,

9   Schulte continued to download child pornography and to watch

10   his child pornography collection.

11   All of this evidence will point to one conclusion:

12   That the defendant received, possessed, and transported child

13   pornography.

14   Now, at the end of this trial, my colleagues,

15   Mr. Bradley and Mr. Denton, will have an opportunity to speak

16   with you again and to explain how that evidence proves the

17   charges against the defendant. And between now and that time,

18   I would ask you to do three things: First, pay close attention

19   to the evidence; second, follow Judge Furman's instructions on

20   the law; and third, use your common sense, the same common

21   sense and good judgment that you apply in your everyday lives.

22   And ladies and gentlemen, I submit to you that if you

23   do those three things, you will reach the verdict that is

24   compelled by the evidence, by the law, and by common sense:

25   That the defendant, Joshua Adam Schulte, is guilty.

1   THE COURT: Thank you, Mr. Lockard.

2   Mr. McManus.

3   MR. McMANUS: May it please the Court, government,

4   ladies and gentlemen of the jury.

5   Joshua Schulte sits here today an innocent man. The

6   presumption of innocence is one of the most fundamental

7   principles of our justice system. As Judge Furman told you,

8   nothing that you've heard so far is evidence. What the

9   government said is not evidence. What I'm telling you right

10   now is not evidence. You must wait until all of the evidence

11   has been presented to you to begin deliberating and come out

12   with your verdict.

13   We also ask that, after you listen to the government's

14   witnesses, you listen to our questions and their answers to

15   them on cross. As I just said, the presumption of innocence is

16   one of the most important parts of the justice system. As you

17   sit here today, if you were asked to vote right now, you must

18   find Joshua Schulte not guilty. You have not heard any

19   evidence yet.

20   Just as important as the presumption of innocence is

21   the government's burden of proof. As the government presents

22   its case, they must prove that Joshua Schulte is guilty of

23   every single element of a charge for you to find him guilty.

24   Judge Furman will give you instructions on what those elements

25   are at the end of the trial.

1   Now, whether you believe, after hearing the evidence,

2   that Mr. Schulte is probably innocent or possibly innocent or

3   probably or possibly guilty, the result must be the same. You

4   must find him not guilty. This is because it's not the job of

5   the defendant to offer anything. We don't need to prove one

6   single thing at trial. We don't need to prove that he's

7   innocent. As I said, he's already presumed to be innocent.

8   We are not required to question any government

9   witness. We are not required to present anything at all. I

10   don't need to be up here giving you an opening statement even.

11   In fact, I don't expect that we'll be asking a lot of questions

12   of the government's witnesses. The burden of proof to prove

13   the case beyond a reasonable doubt at all times lies with the

14   government. It does not switch to the defense at any point.

15   Now, I want to take a moment to thank you for being

16   here today and taking part in what is such an important job as

17   a juror. My name is Shannon McManus, defense attorney

18   representation Joshua Schulte, along with César de Castro, and

19   we're joined by trial assistant Kimberly Tabares.

20   Now, what you are going to see at trial will be

21   difficult to watch. Judge Furman already told you during jury

22   selection that you are not being asked to pass judgment on if

23   child pornography should or should not be illegal. To be

24   clear, child pornography is illegal. What you are being asked

25   is can the government prove that Joshua Schulte committed the

1   crimes for which he has been charged?

2   Now let me go over some evidence I expect you will

3   hear at trial and some evidence that I expect you will not

4   hear. You will hear a lot about a Linux Mint virtual machine.

5   I don't expect you to know what a virtual machine is. You can

6   think of it as a computer inside of a computer. When it's

7   open, it runs like any other computer would, and when it's

8   closed, it sits on your computer like any other file with

9   would.

10   Now, this virtual machine, this Linux Mint virtual

11   machine, it was full of child pornography. It was accessed

12   often, often multiple times a day, and it was accessed multiple

13   times a day right up until May 1, 2016, and then it was never

14   accessed again. This is not in dispute. The government does

15   not dispute this fact.

16   Now, after the Linux machine stopped being accessed,

17   you will hear that Mr. Schulte mass copied hundreds of

18   thousands of files from somewhere onto his home computer. And

19   one of those files was this Linux Mint virtual machine. Again,

20   this was copied after it stopped being accessed at all. I

21   expect you won't hear that the government even knows where this

22   Linux Mint virtual machine was before it was being copied.

23   You will see that there were many, many devices in

24   Mr. Schulte's home. There are computers, there were hard

25   drives, there were phones, there were terabytes upon terabytes

1   upon terabytes of data. Of all of this data, this sea of data,

2   there is a very small amount of child pornography. Now, was

3   Mr. Schulte aware that in this sea of data he had child

4   pornography? That is up to you to decide.

5   I expect that you'll hear about mount points, volumes,

6   encryption, virtual machines, like I just mentioned, and many

7   other technical terms. I expect that you will learn what these

8   all mean by the end of the trial. It is very important, but at

9   the end of the day, the government must prove to you not that

10   Mr. Schulte is probably guilty, they must prove to you that he

11   did so for every single element beyond a reasonable doubt. If

12   you cannot find this, as I expect you will not, then you must

13   find him not guilty.

14   Thank you.

15   THE COURT: Thank you, Mr. McManus.

16   All right. Ladies and gentlemen, that concludes the

17   opening statements, so we will begin with the government's

18   case. I'll ask the government to call its first witness.

19   And while we do that, Ms. Smallman, should we move the

20   podium or just leave it there for now?

21   All right. You may call your first witness, please.

22   MR. LOCKARD: The government calls Special Agent

23   Richard Evanchec.

24   THE COURT: All right.

25   Agent Evanchec, if you can step into the witness box.

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1   When you get there, you can remain standing.

2   RICHARD JOHN EVANCHEC,

3   called as a witness by the Government,

4   having been duly sworn, testified as follows:

5   DIRECT EXAMINATION

6   BY MR. LOCKARD:

7   Q.   Good morning, sir.

8   A.   Good morning, Mr. Lockard.

9   Q.   Who's your employer?

10   A.   The Federal Bureau of Investigation.

11   Q.   What is your current position with the FBI?

12   A.   I am currently the supervisory senior resident agent of the

13   FBI's office in Frisco, Texas.

14   Q.   And can you explain what are the duties and

15   responsibilities of a senior supervisory resident agent.

16   A.   Yes, sir. I am the lead supervisor in Frisco. I work

17   alongside two other supervisors. We oversee the FBI's

18   investigations in ten counties that covers over 2 million

19   people in that area. I also specifically supervise a group of

20   agents and task force officers that especially focus on violent

21   crime, kidnappings, armed robberies in those counties and

22   amongst that population.

23   Q.   Agent Evanchec, when did you first start with the FBI?

24   A.   In 2004.

25   Q.   And what was your position at that time?

1   A. I was an intelligence analyst with the counterterrorism

2   division.

3   Q. Did there come a time when you became a special agent?

4   A. There was.

5   Q. When was that?

6   A. In 2008.

7   Q. Directing your attention to 2017, where were you assigned

8   that year?

9   A. I was assigned to the FBI's field office here in New York

10 City.

11 Q. During your time as a special agent here in New York, did

12 you become familiar with an investigation involving Joshua

13 Schulte?

14 A. I did.

15 Q. When did you become familiar with that investigation?

16 A. In early March of 2017.

17 Q. What was your role in that investigation?

18 A. I was a case agent.

19 Q. Can you explain what are the duties and responsibilities of

20 a case agent.

21 A. Yes, sir. So a "case agent" is a term that we use within

22 the FBI to essentially refer to the lead investigator of a

23 case. Very simply, it boils down to the individual that is

24 responsible for collecting evidence and facts about a certain

25 individual. The goal of that collection of facts and evidence

1   is to either present that material to the United States

2   Attorney's Office to bring criminal charges or to exonerate

3   that person. Another duty of the case agent is to identify the

4   needs of that case and to identify talent within the FBI that

5   can help that, for example, language specialists and

6   translations or computer scientists like we used in this

7   investigation.

8   Q. Agent Evanchec, do you see Mr. Schulte in the courtroom

9   today?

10   A. I do.

11   Q. Can you please identify him by where he's located and his

12   appearance.

13   A. Yes. He is seated at the second from the far right as I

14   see him, wearing a suit and, I believe, a light blue shirt,

15   shaved head.

16   THE COURT: Indicating the defendant.

17   Q. Agent Evanchec, I'd like to direct your attention

18   specifically to March 15 of 2017.

19   A. Yes, sir.

20   Q. Were you on duty that day?

21   A. I was.

22   Q. Did you conduct any investigative actions with respect to

23   your investigation relating to Mr. Schulte that day?

24   A. I did.

25   Q. Generally speaking, what types of investigative actions did

1   you take on March 15 of 2017?

2   A.   Yes. I physically located Mr. Schulte at his place of

3   employment in Manhattan that afternoon, subsequently approached

4   him, we conducted an interview, served a couple of grand jury

5   subpoenas on Mr. Schulte, and ultimately executed a federal

6   search warrant at his apartment.

7   Q.   Let's turn, first, to your interview of Mr. Schulte. Where

8   did that take place?

9   A.   That interviewed occurred at a restaurant on East 42nd

10   Street, Manhattan.

11   Q.   Who was present during that interview?

12   A.   In that interview was my co-case agent, Special Agent David

13   Donaldson with the FBI, and Mr. Schulte.

14   Q.   Did you also interview the defendant on other occasions?

15   A.   I did.

16   Q.   When were these later interviews?

17   A.   Two of them were later in March of 2017 and one was in late

18   June of 2017.

19   Q.   So the first interview was at that restaurant. Where were

20   the later interviews held?

21   A.   The later interviews were held at the offices of the United

22   States Attorney's Office just around the corner here.

23   Q.   Who was present for those later three interviews you

24   described?

25   A.   Again, it was myself, Special Agent David Donaldson with

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1   the FBI, Mr. Schulte, two of Mr. Schulte's defense attorneys,

2   and also two attorneys from the government from the U.S.

3   Attorney's Office here in Manhattan.

4   Q.   Agent Evanchec, in the course of those interviews with the

5   defendant that you participated in, did you and the defendant

6   discuss topics related to his computer expertise?

7   A.   We did.

8   Q.   What did you learn about the defendant's level of computer

9   expertise in those interviews?

10   A.   I learned overall that he had a very advanced level of

11   computing skills.

12   Q.   Did you discuss his educational history?

13   A.   We did.

14   Q.   What is that history?

15   A.   I understood him to have studied computer engineering at

16   the University of Texas in Austin.

17   Q.   Did you discuss his work history?

18   A.   We did.

19   Q.   What types of jobs did Mr. Schulte work in after obtaining

20   his degree?

21   A.   Generally, computer programming.

22   Q.   Where were those jobs geographically?

23   A.   Those jobs were in Austin, Texas, in the metropolitan

24   Washington, D.C. area, and also here in Manhattan.

25   Q.   And when did the defendant move from the metropolitan D.C.

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1   area to Manhattan?

2   A.   In approximately November of 2016.

3   Q.   Did you learn about the defendant's personal use of

4   computers and technology in those interviews?

5   A.   I did.

6   Q.   At a general level, what was the defendant's use of

7   technology personally?

8   A.   Mr. Schulte, in the course of those interviews, detailed

9   that he wanted the latest in computing technology, which caused

10   him to build computers every several years, wherein he would

11   buy the components of computers on Newegg or Amazon and would

12   then transfer data from previous computers to the newest one

13   and would, in some states, retire the older versions of those

14   computers.

15   Q.   We'll come back to your interviews in a moment, but for now

16   let's turn to the search that you mentioned earlier.

17   What location was searched on March 15 of 2017?

18   A.   Mr. Schulte's residence.

19   Q.   Generally speaking, what kinds of evidence did you find in

20   Mr. Schulte's apartment?

21   A.   Sure. There were servers, desktop computers, and various

22   removable media, thumb drives, hard drives, as well as

23   documents.

24   Q.   Where is Mr. Schulte's apartment located?

25   A.   On East 39th Street Manhattan.

1   MR. LOCKARD: Ms. Collins, can we show Agent Evanchec

2   what's been marked for identification as Government

3   Exhibit 101.

4   Q. Agent Evanchec, do you recognize that picture?

5   A. I do.

6   Q. What does it show?

7   A. It shows the building that was Mr. Schulte's apartment.

8   Q. Does it fairly and accurately depict the defendant's

9   apartment building at that time?

10   A. From my recollection, yes.

11   MR. LOCKARD: Government offers Exhibit 101.

12   THE COURT: Any objection?

13   MR. de CASTRO: No objection.

14   THE COURT: Admitted.

15   (Government's Exhibit 101 received in evidence)

16   MR. LOCKARD: May we publish?

17   THE COURT: You may.

18   And, ladies and gentlemen, just because it's the first

19   time presumably most, if not all, of you are doing this, let me

20   just explain. This is now in evidence. So it is part of the

21   evidence that you may consider, along with all the other

22   evidence, when you begin your deliberations. What weight, if

23   any, you give to this, as well as everything else, is up to

24   you.

25   Just so you understand, until something is in

1   evidence, it generally means — there's some exceptions because

2   rules are complicated, but it generally means you can't see it.

3   That's why, until it is admitted into evidence, it's shown just

4   to the witness and to the lawyers and me, but when it's

5   admitted into evidence, then it may be shown to you.

6   So with that, we may publish for the jury.

7   BY MR. LOCKARD:

8   Q. So as we see the photograph of the defendant's apartment

9   building, Agent Evanchec, you should also have in front of you

10 a set of exhibits that are marked for identification as

11 Government Exhibits 102, 103, 106, 110 through 114.

12   Do you see those?

13 A. I do.

14 Q. Have you had an opportunity to review those photographs

15 before your testimony today?

16 A. I have, yes, sir.

17 Q. And generally speaking, what do they show?

18 A. These are pictures that the FBI search team took of

19 Mr. Schulte's apartment during the execution of their search

20 that show the apartment itself, interior of the apartment, and

21 several of the devices that the FBI seized over the course of

22 March 15 and 16 of 2017.

23   MR. LOCKARD: The government offers Exhibits 102, 103,

24 106, and 110 through 114.

25   MR. de CASTRO: No objection.

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1   THE COURT: Admitted.

2   (Government's Exhibits 102, 103, 106, and 110 through

3   114 received in evidence)

4   THE COURT: Mr. de Castro, if you could just find a

5   microphone, it will assist the court reporter.

6   MR. de CASTRO: I realized it as I was saying it. No

7   objection.

8   THE COURT: Thank you.

9   MR. LOCKARD: Ms. Collins, can we please pull up

10   Government Exhibit 102.

11   BY MR. LOCKARD:

12   Q. Agent Evanchec, what does this show?

13   A. This is the interior —— this is the door to Mr. Schulte's

14   apartment, the only door that you could use to access his

15   apartment.

16   Q. How was the FBI team able to get inside the apartment on

17   March 15?

18   A. Mr. Schulte agreed to use his key to open the door for us.

19   Q. Were you present during the search?

20   A. At times, yes.

21   Q. For approximately how long were you present during the

22   search of Mr. Schulte's apartment?

23   A. It was probably on-site off and on for a couple of hours

24   over the totality of the search.

25   THE COURT: If you could just keep your voices up.

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1   All I needed to do was interject, and then the alarm

2   would go off.

3   Go ahead. Sorry.

4   MR. LOCKARD: Ms. Collins, can we please pull up

5   Government Exhibit 103.

6   Q. Agent Evanchec, what does this photograph show?

7   A. You can see off to the right there you see that same door

8   we just looked at momentarily. So this would be someone's

9   vantage point standing at the threshold of the door looking

10   into the apartment through the hallway, with a kitchen off to

11   the left and the living room straight ahead. So the interior

12   of Mr. Schulte's apartment.

13   Q. Agent Evanchec, on the left-hand portion of the photograph,

14   there's a yellow rectangle. Could you explain what that is.

15   A. Sure. That is a Post-it with the letter A on it, and

16   essentially, what the FBI does is when they are conducting a

17   search warrant, we will label each of the rooms with letters,

18   and that basically allows us to properly account for the layout

19   of the apartment and also to be able to tell, in this case, a

20   jury later about where certain items of evidence were found

21   inside that apartment.

22   Q. Agent Evanchec, you mentioned the layout of the apartment.

23   What type of apartment did the defendant live in at that time?

24   A. It was a one-bedroom semi-modern apartment. The bedroom

25   was separated from the rest of the living area with a door, a

1   private bathroom, a living room, and a kitchen. So a very

2   typical one-bedroom Manhattan modern-style apartment.

3   Q. How many people lived in that apartment?

4   A. One.

5   Q. Who was that?

6   A. Mr. Schulte.

7   MR. LOCKARD: Ms. Collins, could we please pull up

8   Government Exhibit 106.

9   Q. Agent Evanchec, could you tell us what this picture shows.

10   A. Sure. This is the living room of Mr. Schulte's apartment

11   as it would have appeared upon entry into the apartment.

12   Q. Then again directing your attention to the yellow rectangle

13   on the upper left-hand portion of that photograph, what does

14   that signify?

15   A. That again is one of those Post-its I mentioned a moment

16   ago. This time, however, this room is notated with D, the

17   letter D.

18   Q. Then directing your attention to the left-hand side where

19   it appears we see a couple of computer screens. What is that

20   area of the apartment?

21   A. Yes, sir. So this is the — what I would say is the office

22   section of Mr. Schulte's apartment where he had his desktop

23   computer, several of the monitors that you see there, keyboard,

24   mouse. So where he conducted his computing.

25   MR. LOCKARD: Ms. Collins, can we please pull up

1   Government Exhibit 110.

2   Q.   Agent Evanchec, can you describe what this photograph

3   shows.

4   A.   Yes. This is a closer look to that office and desk area,

5   specifically focused on a desktop computer on the floor that is

6   marked with an FBI applied label "D1."

7   Q.   What does "D1" mean in this circumstance?

8   A.   That basically is again that accounting effort that I

9   mentioned a moment ago. It notes that this is the first item

10 that the FBI would seize and put into its evidence from room D.

11 Q.   Was this computer recovered during the search?

12 A.   It was.

13 Q.   Did the FBI later analyze that computer?

14 A.   We did.

15 Q.   Were there other computers and electronics that were also

16 recovered during the search?

17 A.   There were.

18   MR. LOCKARD: Ms. Collins, can we please pull up

19 Government Exhibit 111.

20 Q.   Agent Evanchec, can you tell us what this shows?

21 A.   Sure. This is a server rack that was located in room D.

22 Q.   What is the significance of the yellow rectangle that's

23 been applied to the server rack?

24 A.   Again, this is for accounting purposes. It would have been

25 the second item of evidence the FBI was to seize in room D.

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1   THE COURT: Can you just explain what you mean by

2   "server rack."

3   THE WITNESS: Yes, your Honor. So it is a piece of

4   equipment that houses multiple servers that Mr. Schulte used

5   for his computing needs. So it's basically a rack that holds

6   computer hardware.

7   Q.   Were these servers recovered during the search?

8   A.   They were.

9   Q.   And did the FBI later analyze those servers?

10   A.   We did.

11   MR. LOCKARD: Ms. Collins, can we turn to Government

12   Exhibit 112.

13   Q.   Agent Evanchec, can you tell us what's shown here.

14   A.   Sure. This is a Samsung cell phone that was recovered,

15   again, in room D. It would have been the third piece of

16   evidence the FBI was to seize during that search warrant of

17   that room.

18   MR. LOCKARD: Can we also turn to Government

19   Exhibit 113.

20   Q.   Agent Evanchec, what is shown in this photograph?

21   A.   This is an additional desktop computer that was seized in

22   room D, and with the "4" there, we now know that would have

23   been the fourth piece of evidence the FBI received from that

24   room.

25   MR. LOCKARD: If we can also turn to Government

1   Exhibit 114.

2   Q.   Agent Evanchec, what does this picture show?

3   A.   This is a third desktop computer that was located in a

4   closet in Mr. Schulte's apartment.

5   Q.   Again there's a yellow rectangle attached to that computer.

6   Can you tell us what that signifies.

7   A.   Yes.   In this specific incident, Mr. Lockard, it indicates

8   B1, which would mean this is the first item of evidence

9   collected from room B, which in this case was a closet.

10 Q.   Thank you.

11   Ms. Collins, you can take that down, please.

12   Agent Evanchec, I'd like to turn back to the

13 interviews with Mr. Schulte that you described earlier.

14 A.   Yes, sir.

15 Q.   Now, in the course of those interviews, did you ask the

16 defendant about the computers and electronics that were found

17 in his apartment on March 15?

18 A.   I did.

19 Q.   Where were you and the defendant when you asked him

20 questions about his home computers?

21 A.   We were again in the offices of the United States

22 Attorney's Office with my co-case agent, with two attorneys

23 from the U.S. Attorney's Office, Mr. Schulte, and two of his

24 defense attorneys.

25 Q.   Before that interview began, did anyone tell the defendant

1   anything?

2   A.   Yes.

3   Q.   Who spoke to the defendant?

4   A.   The prosecutors with the U.S. Attorney's Office provided

5   some admonishments prior to the beginning of each of those

6   interviews.

7   Q.   What was the defendant told?

8   A.   The defendant was told ——

9   MR. de CASTRO: Objection. Relevance.

10   THE COURT: Overruled.

11   Ladies and gentlemen, just to be clear, I'm going to

12 permit the agent to answer this question regarding what the

13 defendant was told, but that is just for context and

14 understanding what the defendant's response was. So you may

15 not consider what he was told for its truth but merely for

16 context.

17   Go ahead.

18 Q.   Agent Evanchec, what was the defendant told before the

19 interview began?

20 A.   The defendant was told that he had an obligation to be

21 truthful when speaking to FBI agents. He was advised that a

22 failure to do so and that lying to the FBI was a violation of

23 federal law. He was told that he had the right to consult with

24 his attorneys at any time during the interview. He was advised

25 that he was free to answer or to not answer any question as he

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1   chose.

2   Q. Generally speaking, what was the defendant's demeanor like

3   during your interviews with him?

4   A. Throughout all of my interviews with Mr. Schulte, he was

5   pleasant to talk to. He was very cooperative and engaged.

6   Q. Agent Evanchec, there should be a second set of exhibits in

7   front of you that are marked for identification as Government

8   Exhibit 110, which is already in evidence, as well as

9   Government Exhibits 127 through 132 and Government

10   Exhibit 2002.

11   Do you recognize those pictures?

12   A. Yes, sir, I do.

13   Q. Have you had an opportunity to review those before your

14   testimony today?

15   A. I have.

16   Q. What are those pictures?

17   A. These are photos of the electronic devices that I shared

18   with Mr. Schulte during the course of our interview in late

19   June of 2017.

20   MR. LOCKARD: The government offers Exhibits 127

21   through 132 and 2002.

22   THE COURT: Any objection?

23   MR. de CASTRO: No objection.

24   THE COURT: Admitted.

25   (Government's Exhibits 127 through 132 and 2002

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1   received in evidence)

2   MR. LOCKARD: Again, Ms. Collins, can we please pull

3   up Government Exhibit 110.

4   BY MR. LOCKARD:

5   Q. Agent Evanchec, is this one of the pictures from the search

6   that we looked at a few moments ago?

7   A. It is.

8   Q. Is this one of the photographs that you showed Mr. Schulte

9   during your interview?

10   A. It is.

11   Q. What, if anything, did the defendant say about when he got

12   this computer?

13   A. Mr. Schulte indicated this is a computer that he used and

14   built during his time living in Virginia prior to his move to

15   New York City.

16   Q. What did the defendant say about how he used this computer?

17   A. Mr. Schulte indicated that this essentially was his

18   everyday computer. He used it for web browsing, gaming, and

19   coding.

20   Q. Did you ask the defendant about who had access to this

21   computer?

22   A. I did.

23   Q. What did the defendant say?

24   A. He indicated that he had access to this computer and no one

25   else did.

1   Q.   Agent Evanchec, did you ask the defendant questions

2   relating to encryption in this computer?

3   A.   I did.

4   Q.   What did the defendant say about encryption on this

5   computer?

6   A.   He indicated that he had applied at least two different

7   encryption levels on this computer while living in Virginia.

8   It was Microsoft BitLocker, and there was an additional one as

9   well I can't recall off the top of my head. I'm sorry. I

10   think it was VeraCrypt, actually.

11   Q.   I'm sorry?

12   A.   I think VeraCrypt was what he indicated was the second.

13   Q.   Are you personally familiar with BitLocker or VeraCrypt?

14   A.   I am not.

15   Q.   Generally speaking, what is the purpose of encryption?

16   A.   Encryption is a way to secure data on a computer. From my

17   limited understanding, essentially scrambles the data on there

18   that makes it inaccessible without providing a password or a

19   digital key.

20   Q.   Did you ask the defendant about who had the password to the

21   encryption on this computer?

22   A.   I did.

23   Q.   What did Mr. Schulte say?

24   A.   That he did.

25   Q.   Did you ask whether anyone else had the password to the

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1   encryption?

2   A.   We did.

3   Q.   What did Mr. Schulte say?

4   A.   They did not.

5   Q.   Agent Evanchec, earlier you described the defendant's

6   demeanor generally throughout your interviews.

7   A.   Yes.

8   Q.   What was the defendant's demeanor when you were discussing

9   encryption on this computer?

10   A.   It was definitely a deviation from what in the FBI we refer

11   to as a baseline. There was movement in his chair, certainly

12   gazes around the room. There was definitely a change in how

13   Mr. Schulte's physical reaction was to the interview at this

14   time.

15   Q.   During this interview, did you ask the defendant what was

16   encrypted on the computer?

17   A.   We did.

18   Q.   What did Mr. Schulte say?

19   A.   Mr. Schulte said, "It's just porn. I encrypt my porn."

20   Q.   Did Mr. Schulte explain why he'd encrypted his porn?

21   A.   He indicated he wanted to prevent his mother from seeing

22   it.

23   Q.   During this interview, was the defendant asked for his

24   password to the encryption on this computer?

25   A.   He was, yes, sir.

1   Q.   What was his response?

2   A.   He declined to give the password to the FBI.

3   MR. LOCKARD: Ms. Collins, could we please pull up

4   Government Exhibits 127 and 128.

5   Q.   Agent Evanchec, did you show these photographs to

6   Mr. Schulte during the interview?

7   A.   Yes.

8   MR. LOCKARD: Ms. Collins, if we could please compare

9   Government Exhibit 127 and 114.

10   Q.   Agent Evanchec, which computer from the apartment is

11   Government Exhibit 127?

12   A.   The device is what we previously talked about as B1 from

13   the search.

14   Q.   Where was that computer found during the search?

15   A.   In Mr. Schulte's closet of his apartment.

16   Q.   What did the defendant say about this computer here as

17   Government Exhibit 127?

18   A.   So this specific device Mr. Schulte described as one of his

19   older computers that he had used while he was living in

20   Virginia.   He indicated that this computer at times was shared

21   with a roommate that he had while living in Virginia, and

22   that's from what I recall.

23   Q.   During your investigation, did you learn when Mr. Schulte

24   had a roommate in Virginia?

25   A.   I did.

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1   Q.   What was that?

2   A.   I believe the summer months of 2015 and 2016. So it was

3   not continuous, but months at a time.

4   MR. LOCKARD: Ms. Collins, can we pull up Government

5   Exhibits 129 and 130.

6   Q.   Agent Evanchec, did you show these pictures to Mr. Schulte

7   during the interview?

8   A.   I did, yes, sir.

9   MR. LOCKARD: And, Ms. Collins, if we could again

10 please compare Government Exhibit 129 and 113.

11 Q.   Agent Evanchec, where was this computer found in the

12 apartment?

13 A.   This was found in room D, which was that main living area

14 of the apartment. Sorry.

15 Q.   Do these two pictures show the same computer?

16 A.   They do.

17 Q.   What did Mr. Schulte say about this computer?

18 A.   He indicated that this computer was, again, one of his

19 older computers that he used for watching TV previously.

20   MR. LOCKARD: Ms. Collins, could we please pull up

21 Government Exhibit 131 and 132.

22 Q.   Agent Evanchec, did you show these pictures to Mr. Schulte

23 during the interview?

24 A.   We did.

25   MR. LOCKARD: Ms. Collins, if we can compare

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1   Government Exhibit 131 with Exhibit 111.

2   Q. Agent Evanchec, where in the apartment was Government

3   Exhibit 131 found?

4   A. Again, in room D, which is that living area of the

5   apartment.

6   Q. Do these two pictures show the same computer?

7   A. They do.

8   Q. What did Mr. Schulte say about this computer?

9   A. So Mr. Schulte explained that this is a server rack that

10   actually contained two different servers. They each operate a

11   different operating system. One was Microsoft; one was Linux.

12   He indicated that one of the servers was a Plex server, and the

13   other was a storage server.

14   Q. You mentioned Linux. Are you familiar with what that is?

15   A. I am not.

16   Q. You also mentioned a Plex server. Are you familiar with

17   what a Plex server is?

18   A. Very generally.

19   Q. Very generally, what is a Plex server?

20   A. The type of server that allows users to store digital

21   media, movies, TV shows, things like that.

22   Q. What did the defendant say about the Plex server?

23   A. He indicated that it was a server that was accessed by

24   friends and family and that it did have media on it and that it

25   also was encrypted.

1   Q.   In your investigation, did you learn what kind of media was

2   hosted on the Plex server?

3   A.   We did.

4   Q.   Generally, what kind of media was on that server?

5   A.   Commercially produced and copyrighted movies, television

6   shows.

7   Q.   What did the defendant say about the storage server?

8   A.   The storage server, he indicated, was a server that was

9   accessed between 10 and 12 people, friends and family that he

10   permitted them to access that to store whatever kind of data

11   they wanted on there. He, as an example, indicated his mother

12   and brother used it to store school projects on.

13   Q.   What did the defendant say about his personal use of the

14   server?

15   A.   He indicated that he had root access to that server.

16   Q.   And what did the defendant say about what root access

17   meant?

18   A.   He indicated specifically in the interview that it allowed

19   him to see all of the data, anything that could have been put

20   on that server by any of those 10 to 12 people.

21   Q.   Did the defendant say whether anyone else had root access

22   to this storage server?

23   A.   He did.

24   Q.   What did he say about that?

25   A.   He indicated that previously there was a friend of his, I

1   believe his name was Sturm, who had access at the root level to

2   that server.

3   Q. You said Sturm previously had access. What happened?

4   A. So as Mr. Schulte indicated to us in the interview, five to

5   six years prior to our interview, Sturm had fork-bombed the

6   server which, in Mr. Schulte's words, caused the server to

7   operate at a very high speed, therefore endangering the

8   infrastructure. And as a result of that, Mr. Schulte removed

9   Sturm's root access to that server.

10   THE COURT: Can you explain what you mean by "root

11   access."

12   THE WITNESS: Sure, your Honor. Root access, from my

13   understanding, is basically the administrator level access to a

14   computer. So it would be the individual that could manipulate

15   that hardware the most. So they had the rights and privileges

16   to access, to manipulate that data, and restore and deny access

17   to others from that device.

18   MR. LOCKARD: Ms. Collins, can we please pull up

19   Government Exhibit 2002.

20   Q. Agent Evanchec, what's shown in this picture?

21   A. This is a Samsung cellular phone that was taken and seized

22   from Mr. Schulte's apartment on March 15 and 16.

23   MR. LOCKARD: If we can please compare this with

24   Government Exhibit 112.

25   Q. Do these pictures show the same Samsung cell phone?

1   A.   They do.

2   Q.   Did you show the defendant other pictures of cell phones

3   during the interview?

4   A.   We did.

5   Q.   What did Mr. Schulte say generally about the cell phones

6   that the FBI found in his apartment?

7   A.   Generally, he articulated that the four cell phones were

8   used by him primarily. I believe he indicated that there was

9   one exception of one phone that was used for a short time by

10   his brother.

11   Q.   And what did Mr. Schulte say about this Samsung cell phone

12   in particular shown in Government Exhibit 2002?

13   A.   Yes. He indicated that this is a cell phone he purchased

14   in the summer of 2016 for the purpose of playing Pokémon GO.

15   MR. LOCKARD: Ms. Collins, could you please pull up

16   Government Exhibit 110 again.

17   Q.   Agent Evanchec, earlier you were telling us about the

18   portion of the interview discussing encryption on this

19   computer. At the time of the interview, had the FBI been able

20   to decrypt the defendant's computer?

21   A.   Yes.

22   Q.   How was the FBI able to do so?

23   A.   Our computer scientists were able to defeat the passwords

24   that had encrypted that data.

25   Q.   How were the computer scientists able to do that,

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1   generally?

2   A.   My understanding is they used a combination of the known

3   passwords that Mr. Schulte used to run against that encryption

4   and were able to gain access.

5   Q.   Now, during the interview, did you tell the defendant that

6   the FBI had decrypted his computer?

7   A.   We did not.

8   Q.   After the FBI decrypted the defendant's computer, did there

9   come a time when you were informed of an issue about its

10   contents?

11   A.   Yes.

12   Q.   When you were informed of that issue, what did you do next?

13   A.   So I was called over to one of our computer scientist's

14   terminals who showed me an image. Upon inspecting that image,

15   I called for a halt to the FBI search of that digital media.

16   Q.   What type of image did you see?

17   A.   It was an image depicting a very small child on the ground

18   being sexually assaulted.

19   Q.   By whom was that child being sexual assaulted?

20   A.   An adult male.

21   Q.   Did you review any other files from the defendant's

22   computer?

23   A.   I did.

24   Q.   What other files did you review?

25   A.   There was a time when I reviewed a very professionally

1   produced video. It began by watching a very small girl walk

2   alone into a forest, after which time she was raped by an adult

3   male.

4   MR. LOCKARD: Your Honor, at this time the government

5   would offer a stipulation.

6   THE COURT: All right. Ladies and gentlemen, a

7   "stipulation" is a sort of fancy lawyer word for an agreement.

8   It's an agreement between the parties as to either facts that

9   parties agree to or to testimony that they agree would be

10   offered but for the stipulation. The bottom line is the

11   stipulation, once admitted, is part of the evidence, and you

12   may give it whatever weight you wish, as you do all the other

13   evidence that is admitted during trial.

14   You may proceed, Mr. Lockard.

15   MR. LOCKARD: So in the matter of the United States of

16   America v. Joshua Adam Schulte, it is hereby stipulated and

17   agreed, by and among the United States of America by Damian

18   Williams, United States Attorney for the Southern District of

19   New York, David W. Denton Jr., Michael D. Lockard, and Nicholas

20   S. Bradley, Assistant United States Attorneys, of counsel, and

21   Joshua Adam Schulte, the defendant, by and through his counsel

22   César de Castro, Esq., and Shannon McManus, Esq., that:

23   1. If called as a witness, a Special Agent

24   ("Agent-1") with the Federal Bureau of Investigation ("FBI")

25   with knowledge of the matter would testify that on or about

1   March 15, 2017, Agent-1 was present at 200 East 39th Street,

2   Apartment 8C, New York, New York 10016 (the "Apartment") to

3   execute a search warrant, (the "Search Warrant"). While

4   present at the apartment, Agent-1 recovered a desktop computer

5   that was used by the defendant containing four internal hard

6   drives marked as Government Exhibit 200, known as the "Home

7   Computer".

8   Government Exhibits 110, 201 through 213 and 220

9   through 224 are true and accurate copies of the home computer

10   and four internal hard drives.

11   Government Exhibit 214 through 219 are true and

12   accurate photographs of system information concerning the home

13   computer.

14   Government Exhibits 230, 235 through 240, 247, 325,

15   442, and 468 through 510, 577 through 582, and 596 through 619

16   are true and accurate copies of forensic files and data

17   recovered from the home computer.

18   Government Exhibit 1001 is a thumb drive containing

19   true and accurate copies of image and video files recovered

20   from the home computer from an encrypted container named

21   "data.bkp" containing a Linux Mint virtual machine.

22   Government Exhibit 1002 is a thumb drive containing

23   true and accurate copies of image and video files recovered

24   from the home computer from an encrypted container named

25   "volume."

1   The images and videos contained on Government

2   Exhibits 1001 and 1002 depict actual minors and were

3   transported in and affecting interstate and foreign commerce,

4   including by computer.

5   Government Exhibit 1001-1 is a true and accurate

6   listing of the files contained on Government Exhibit 1001, and

7   Government Exhibit 1002-1 is a true and accurate listing of the

8   files contained on Government Exhibit 1002.

9   If called as a witness, a digital forensic examiner,

10   or Examiner-1, with the FBI, with knowledge of the matter would

11   testify that on or about March 15, 2017, Examiner-1 was present

12   at the apartment to execute the search warrant. While present

13   at the apartment, Examiner-1 recovered a Samsung Galaxy J3 cell

14   phone that was used by the defendant marked Government

15   Exhibit 2000 and known as the Samsung cell phone.

16   Government Exhibit 2001 is a true and accurate copy of

17   forensic files and data recovered from the Samsung cell phone,

18   including user accounts and user passwords stored on the

19   Samsung cell phone.

20   Government Exhibits 112 and 2002 are true and accurate

21   photographs of the Samsung cell phone.

22   It is further stipulated and agreed that this

23   stipulation, as Government Exhibit 2401, as well as Government

24   Exhibits 200 through 224, 230, 235 through 240, 247, 325, 442,

25   468 through 510, 577 through 582, 596 through 619, 1001,

1   1001-1, 1002, 1002-1, 2000 through 2002 may be received in

2   evidence at trial.

3   The government offers the stipulation and the exhibits

4   referenced therein.

5   THE COURT: For the record, the stipulation is marked

6   as Government Exhibit 2401, is that correct?

7   MR. LOCKARD: That is correct, your Honor.

8   THE COURT: Any objection to all of that?

9   MR. de CASTRO: No, your Honor.

10   THE COURT: All right. All of those are admitted into

11   evidence at this time.

12   (Government's Exhibits 200 through 224, 230, 235

13   through 240, 247, 325, 442, 468 through 510, 577 through 582,

14   596 through 619, 1001, 1001-1, 1002, 1002-1, 2000 through 2002

15   and 2401 received in evidence)

16   THE COURT: One just point of clarification, counsel.

17   I see that there is an exhibit on the exhibit list that is

18   marked as 490-1. Is that included in the list that was just

19   offered and admitted?

20   MR. LOCKARD: Yes, that is included within the range

21   of exhibits in the stipulation.

22   THE COURT: Mr. de Castro, is that correct?

23   MR. de CASTRO: That's right, Judge.

24   THE COURT: Thank you. So all of those are admitted.

25   MR. LOCKARD: No further questions, your Honor.

1   THE COURT: All right. Cross-examination.

2   MR. DE CASTRO: Thank you. Testing the mic.

3   CROSS-EXAMINATION

4   BY MR. DE CASTRO:

5   Q. Good morning, agent.

6   A. Good morning, sir.

7   Q. So you were one of the lead case agents, right?

8   A. That's correct.

9   Q. And is it fair to say that that's sort of a coordination

10   role?

11   A. That's correct.

12   Q. It was your job to know everything that was happening and

13   to direct the right resources in the right places?

14   A. Part of the job, yes.

15   Q. So that also included supervising the recovery of all of

16   these electronic devices, right?

17   A. Correct.

18   Q. So you were present when at least some of them were

19   recovered?

20   A. Correct.

21   Q. Because that is a pretty involved process, right?

22   A. Hours-long, yes.

23   Q. And so you call a separate team that comes to copy those

24   items, right?

25   A. That's correct.

N9CHSch1   Evanchec - Cross

1   Q.   That copying, a lot of it happens there at the location?

2   A.   It can, or it could also occur off-site, correct.

3   Q.   Did some of the copying happen on location in this case?

4   A.   I believe so.

5   Q.   Now, you testified that some electronic devices were

6   recovered, correct?

7   A.   Correct.

8   Q.   In fact, it was an enormous amount of electronic devices,

9   right?

10   A.   It was a lot, yes, sir.

11   Q.   Am I right that you testified about the search being

12   conducted on March 15 of 2017, right?

13   A.   Correct, and it went into the next day as well, just given

14   that we crossed that midnight time frame, yes, sir.

15   Q.   Started on the 15th and continued to whenever it was done?

16   A.   Yes, sir, that's correct.

17   Q.   Am I correct that on March 13 you also went into his

18   apartment with a search warrant?

19   A.   I did not, but the FBI did, yes.

20   Q.   And the building gave access to the FBI, is that your

21   understanding?

22   A.   I was not present. I'm not sure.

23   Q.   And the ── well, let's just talk about the apartment for a

24   second.

25   I think you already testified it was a one-bedroom,

1   right?

2   A.   Yes, sir.

3   Q.   Large one-bedroom or small one-bedroom?

4   A.   It was a smaller one-bedroom.

5   Q.   It's essentially two rooms, right? If you take away the

6   bathroom and some closets, it's essentially two rooms, a living

7   room and a bedroom?

8   A.   That's correct.

9   Q.   I mean, obviously, there was a kitchen, a bathroom, and

10   some closets?

11   A.   Yes, sir.

12   Q.   And the intention for the FBI was to search and recover

13   items from that apartment?

14   A.   That's correct.

15   Q.   And when other agents went in, it's your understanding they

16   found an enormous amount of data — excuse me, withdrawn.

17   When other agents went in on the 13th, two days before

18   the search, it was discovered that there was an enormous amount

19   of electronic evidence?

20   A.   I wasn't present for that search.

21   Q.   Are you aware that they had — that they aborted the search

22   because of the amount of electronics?

23   A.   I was aware that they made a determination that there was a

24   large amount of computer equipment there, yes.

25   Q.   And you needed more people?

N9CHSch1   Evanchec - Cross

1   A. Correct.

2   Q. So that's why they decided to do the search two days later

3   on the 15th?

4   A. That's my understanding, yes.

5   Q. And so that's what happened, you returned on the 15th with

6   a dozen or more agents?

7   A. Correct.

8   Q. And that was with Mr. Schulte's consent. I mean, you had a

9   search warrant, but he gave you the keys?

10   A. Absolutely, yes, sir.

11   Q. And that search took, am I right, 15 hours?

12   A. Fifteen plus, yes.

13   Q. Fifteen plus.

14   I think, as you said, it was an enormous collection,

15   right?

16   A. Yes, sir.

17   Q. Agents were there from the FBI's CART squad?

18   A. I'm sorry?

19   Q. From the FBI's CART squad, the C-A-R-T squad?

20   A. Yes.

21   Q. To collect some of the digital evidence and take it back to

22   headquarters right around here?

23   A. Yes, sir.

24   Q. At one point on-site and off-site copying was happening

25   around the clock?

1   A.   That's correct.

2   Q.   Because the idea is take everything, make a copy of

3   everything so you can look at it, work with it, right?

4   A.   Copies —— copies were made, yes, yes.

5   Q.   And this was certainly —— well, withdrawn.

6   This was the largest collection you had of electronic

7   evidence that you had participated in, right?

8   A.   Personally, yes.

9   Q.   More than 20 terabytes?

10   A.   Correct.

11   Q.   Now, there were —— you testified about some computers that

12   were recovered, but there was also things like motherboards,

13   right.

14   A.   Correct.

15   Q.   Processors as well?

16   A.   Yes, sir.

17   Q.   I think you mentioned the rack server, right?

18   A.   Yes, sir.

19   Q.   And to your knowledge, no child pornography evidence was

20   found on the rack server, correct?

21   A.   I didn't personally examine the rack server.

22   Q.   But you're aware —— you're the case agent, right? You're

23   aware whether child pornography was found on that server, are

24   you not?

25   A.   I did not participate in the search of that.

1   Q.   There were eight thumb drives recovered, right?

2   A.   There were thumb drives. I can't remember exactly how

3   many, sir, but that number sounds roughly familiar.

4   Q.   I mean, I can show you something if you want to refresh

5   your recollection, or that's ——

6   A.   I'm comfortable with eight.

7   Q.   OK. Thanks.

8   To your knowledge, no child pornography found on those

9   thumb drives?

10   A.   I didn't participate in the search of those items.

11   Q.   The phones, four phones, something like that?

12   A.   Four phones, yes, sir.

13   Q.   Are you aware that no child pornography evidence was found

14   on those?

15   A.   I didn't personally review any of the phones.

16   Q.   Eleven hard drives, does that sound about right?

17   A.   I would not be able to tell you the number.

18   Q.   More than ten?

19   A.   If you wanted to show me something, I'd be happy to ——

20   happy to confirm that.

21   Q.   No problem.

22   Your Honor, can I approach the witness?

23   THE COURT: You may.

24   MR. de CASTRO: Thanks.

25   3501-735.

1   THE COURT: Sorry, that was 3501-what?

2   MR. de CASTRO: 735.

3   Q. Can you have a look and tell me if that refreshes your

4   recollection that 11 hard drives were found? You may have to

5   count. Sorry.

6   A. Eleven. Eleven it is.

7   Q. Great. Hang on to that. You may need —— you can put it

8   down, and then if you need to refresh, you'll let me know?

9   A. Yes, sir.

10   THE COURT: Ladies and gentlemen, let me interrupt.

11   When a witness doesn't recall something, a lawyer is permitted

12   to show them something just to refresh their recollection. It

13   is their testimony that is the evidence. That is to say, if

14   something refreshes their recollection, then they may testify

15   to it and you may consider that testimony as you do any other

16   testimony. Because it's just shown to the witness for purposes

17   of refreshing the witness' recollection, it's not actually

18   offered, let alone admitted into evidence, and that's why it's

19   not going to be shown to you.

20   You may proceed.

21   MR. de CASTRO: Thank you, Judge.

22   BY MR. DE CASTRO:

23   Q. A couple Xboxes were found, right?

24   A. Yes, sir.

25   Q. You're aware that Xboxes are able to store data and files,

1   right?

2   A. Yes, sir.

3   Q. Are you aware that no child pornography was found on the

4   Xboxes?

5   A. I didn't participate in those searches.

6   Q. Sort of same questions. There were two Kindle tablets and

7   also a separate Samsung, tablet, does that sound right?

8   A. That sounds familiar.

9   Q. There's also no, that you're aware, child pornography

10   found?

11   A. I didn't participate in those searches.

12   Q. MP3 players were found, some CDs as well?

13   A. Yes, sir.

14   Q. CDs, DVDs, things that you could put data on, right?

15   A. Yes, sir.

16   Q. Now, then there was the towers that you talked about, or

17   desktop computers, right?

18   A. Yes, sir.

19   Q. It is your testimony that child pornography evidence, that

20   you're aware, was found on some —— on two of those?

21   A. No.

22   Q. One of those?

23   A. One of those, yes.

24   Q. I'm sorry.

25   And that was a system that had three one terabyte

1   drives on it. Do you recall that?

2   A.   I didn't examine that device specifically personally, no.

3   Q.   Are you aware that it had —— actually, you may —— it may

4   refresh your recollection if you look at the exact same

5   document that I showed you, I think. Oh, no, my apologies.

6   Can I approach, Judge, and grab that?

7   THE COURT: You may.

8   MR. de CASTRO: Thank you.

9   Q.   Just approaching you and showing you what's been marked as

10   3501-734. Just let me know if that refreshes your recollection

11   that the desktop had three one terabyte drives.

12   A.   Yes.

13   Q.   Thanks.

14   THE COURT: Just to be clear, that is the desktop on

15   which your understanding is child pornography was found, is

16   that correct?

17   THE WITNESS: That's correct, your Honor.

18   THE COURT: And just out of curiosity, do you know

19   what a terabyte is?

20   THE WITNESS: A very large capacity to store data,

21   your Honor.

22   BY MR. de CASTRO:

23   Q.   And actually, I'll ask you some questions on that.

24   So 20 terabytes of information, of space, was

25   recovered, right? Things with 20 terabytes of data, right?

1   A.   Correct.

2   Q.   So there's 1,000 gigabytes in each terabyte, right?

3   A.   That sounds correct.

4   Q.   So we're talking about 20,000 gigabytes of data, right?

5   A.   Correct.

6   Q.   And are you aware that the child pornography is less than

7   30 gigabytes of information?

8   A.   I don't recall that specific figure off the top of my head,

9   sir.

10   Q.   If it was less than 30 gigabytes, we would be talking about

11   a very small percentage, right?

12   MR. LOCKARD: Objection.

13   A.   Again, I can't speak to the volume.

14   Q.   Now, you testified a little bit about the statements

15   Mr. Schulte gave to you, correct?

16   A.   Yes, sir.

17   Q.   Now, and you testified about a meeting around the corner

18   here at the U.S. Attorney's Office, right?

19   A.   Yes, sir.

20   Q.   And that's the sort of office for the federal prosecutors

21   here in Manhattan, right?

22   A.   Yes, sir.

23   Q.   Pretty important and powerful building, you agree with me?

24   A.   It's where the United States Attorney's Office is and where

25   all parties agreed to meet, yes.

N9CHSch1   Evanchec - Cross

1   Q. But it is the house of the prosecutors, right?

2   MR. LOCKARD: Objection.

3   THE COURT: I think we got the point. Next question.

4   Q. So he was meeting with you and another agent in the room,

5   correct?

6   A. With his attorneys, yes.

7   Q. But he was with you and other agents in the room, right?

8   A. One other agent, yes.

9   Q. Two federal prosecutors, correct?

10   A. Correct.

11   Q. You were questioning him regarding his access and

12   possession of these —— this computer hardware, right?

13   A. Yes, sir.

14   Q. And in fact, you were interrogating him about it, right?

15   A. We were asking him questions.

16   Q. Well, "interrogation" is another word for questioning?

17   MR. LOCKARD: Objection.

18   THE COURT: Sustained.

19   Mr. Lockard, can you just move the microphone closer,

20   please.

21   MR. LOCKARD: Yes, your Honor.

22   Q. You were asking him questions with the intention of trying

23   to get incriminating responses, correct?

24   A. No.

25   Q. You were asking him questions to elicit exonerating

N9CHSch1   Evanchec – Cross

1   responses?

2   A.   No.

3   Q.   You were just curious?

4   A.   I was asking questions to understand and learn facts.

5   Q.   But you had learned facts already that you did not share

6   with him, correct?

7   A.   That is correct.

8   Q.   Like you had already accessed the computer, correct?

9   A.   Correct.

10   Q.   And you had said on direct that you were —— in fact, your

11   computer scientists were able to defeat the encryption, right?

12   A.   Correct.

13   Q.   When you say "defeat it," it says it was —— must have been

14   difficult. It wasn't particularly difficult, was it?

15   A.   I can't speak to the level of difficulty in defeating that

16   password, no.

17   Q.   Well, the password was on his phone, right?

18   A.   My understanding, yes.

19   Q.   So couldn't have been too difficult, right? They didn't

20   have to guess?

21   MR. LOCKARD: Objection.

22   THE COURT: Sustained.

23   Q.   Now, you testified that at some point there was sort of a

24   change in his demeanor, correct?

25   A.   Yes.

1   Q. A physical change?

2   A. Correct.

3   Q. When you started asking him more directed questions,

4   correct?

5   A. No.

6   Q. No. They were just general questions?

7   A. They were questions about the encryption.

8   Q. And some of these questions were answers you already knew

9   the answers to, right?

10 A. Yes.

11 Q. So you were — a bit of a test here to see what he would

12 say to you, right?

13 A. It was not a test, no.

14 Q. Do you think your demeanor changed or whoever was

15 questioning him's demeanor might have changed?

16 A. I don't recall my demeanor at that time. I'm a pretty

17 consistent person, pretty consistent interviewer.

18 Q. Is it unusual, in your experience, for people who are being

19 interviewed by federal prosecutors with federal agents in the

20 room to be nervous?

21 A. Yes.

22 Q. Would that be unusual?

23 A. I don't think that's unusual, no.

24 Q. And in your experience over the years, people's demeanor

25 change all the time and it's — right?

N9CHSch1   Evanchec - Cross

1   A.   No.

2   Q.   Doesn't change? Doesn't change?

3   A.   No.

4   Q.   And in your experience, agents or prosecutors, their

5   demeanor changes as well, doesn't it? Sometimes?

6   A.   Everyone has a baseline as their behavior, as I've been

7   trained in the FBI, and deviations from that baseline can be an

8   indication of untruthfulness, yes.

9   Q.   So are you qualified as a behavioral scientist?

10   A.   I'm not a behavioral scientist, no.

11   Q.   So your determination of a baseline is just your gut?

12   A.   From training and certifications that I've obtained from

13   the government, yes.

14   Q.   So you're telling me that training, certifications can tell

15   you how to determine someone's baseline?

16   A.   They can certainly help inform that, yes.

17   Q.   And to determine someone's baseline, you have to determine

18   the surrounding circumstances as well, right?

19   A.   Correct, absolutely.

20   Q.   Like where you're meeting with the person, right?

21   A.   Sure.

22   Q.   Like if you're in their living room versus the United

23   States Attorney's Office?

24   A.   Fair, sir.

25   Q.   Now, with respect to the desktop computer, you testified

1   that Mr. Schulte told you that he did not share that computer

2   with anyone, correct?

3   A.   Correct.

4   Q.   That no others had access to that computer?

5   A.   That's correct.

6   Q.   Did he specify whether it was physical versus sort of

7   electronic access?

8   A.   He did not.

9   Q.   And that computer contained, and he told you that it

10   contained, encryption, right?

11   A.   That's correct, yes, sir.

12   Q.   And of course, you already knew that, right?

13   A.   Yes, sir.

14   Q.   He said to you that he did not think he shared the

15   encryption passwords with anyone, correct?

16   A.   There were several references to it. Of the three, that

17   was one of them, yes.

18   Q.   And that he didn't think he gave anyone access to that

19   computer, that sound right?

20   A.   He did say that at one point, yes.

21   Q.   Now, you're not a technological expert or a CART examiner,

22   correct?

23   A.   That is true, yes, sir.

24   Q.   But are you aware, as the lead case agent, that there was

25   evidence discovered in the forensic analysis that the desktop

1   was accessed by other users in the form of something called a

2   Samba share?

3   A.   I'm not aware of that.

4   Q.   Do you know what a Samba share is?

5   A.   I don't, no.

6   Q.   Do you have any knowledge of ways on which I, for example,

7   could share access to my desktop computer with others?

8   A.   I am not, no, sir.

9   MR. de CASTRO: I have nothing further.   Thank you.

10   THE WITNESS: You're welcome, sir.

11   THE COURT: Any redirect?

12   MR. LOCKARD: Yes, your Honor.

13   REDIRECT EXAMINATION

14   BY MR. LOCKARD:

15   Q.   Agent Evanchec, during cross-examination you were asked

16   some questions about Mr. Schulte's demeanor during your

17   interview?

18   A.   Yes.

19   Q.   Approximately how much time did you spend interviewing

20   Mr. Schulte across the several interviews that you had with

21   him?

22   A.   Twelve-plus hours overall.

23   Q.   Can you remind us, generally, during those 12-plus hours,

24   what was his typical demeanor?

25   A.   Again, very cooperative, very forthcoming, and frankly,

1   pleasant to speak with.

2   Q.   Did there come a time during the interview when that

3   demeanor changed?

4   A.   Absolutely.

5   Q.   And with respect to Mr. Schulte's computers, when did that

6   happen?

7   A.   When we were asking questions about the encryption.

8   Q.   Now, during cross-examination, you were also asked some

9   questions about the various devices that were found in

10   Mr. Schulte's apartment during the search in March of 2017?

11   A.   I recall that, yes, sir.

12   Q.   Is it fair to say there were a number of computers and

13   devices and storage media that were recovered?

14   A.   Yes, sir.

15   Q.   Did Mr. Schulte identify the presence of pornography on any

16   of those?

17   A.   He did.

18   Q.   How many of them?

19   A.   One.

20   Q.   Which device was that?

21   A.   The main desktop computer that we saw featured in the photo

22   underneath his desk that was seated on the floor.

23   Q.   During cross-examination you were asked some questions

24   about physical access versus electronic access. Do you recall

25   those questions?

1   A. I do, yes, sir.

2   Q. During your interview with Mr. Schulte, did he identify

3   occasions when people had remote access to his computers?

4   A. He did.

5   Q. Which computers did he say people had remote access to?

6   A. He indicated that it was both servers in the server rack.

7   Q. Is that what he described as the Plex server and the

8   storage server?

9   A. Yes, sir, that's correct.

10 Q. When you asked Mr. Schulte about access to the desktop,

11 what did he say?

12 A. He did not indicate that there was any other people that

13 had access to that device.

14   MR. LOCKARD: No further questions.

15   THE COURT: Any recross?

16   MR. de CASTRO: No, your Honor. Thanks.

17   THE COURT: Agent Evanchec, you may step down.

18   THE WITNESS: Thank you, your Honor.

19   (Witness excused)

20   THE COURT: And next witness.

21   MR. BRADLEY: Yes, your Honor. The government calls

22 Special Agent Aaron Spivack.

23 AARON SPIVACK,

24   called as a witness by the Government,

25   having been duly sworn, testified as follows:

N9CHSch1   Spivack - Direct

1   DIRECT EXAMINATION

2   BY MR. BRADLEY:

3   Q.   Where do you work, sir?

4   A.   I work for the Federal Bureau of Investigation.

5   Q.   What is your position?

6   A.   I'm a special agent.

7   Q.   How long have you been a special agent with the FBI?

8   A.   Almost 16 years.

9   Q.   Where did you work before the FBI?

10   A.   Prior to being an FBI agent, I was an analyst for the FBI

11   for a couple of years, and prior to that I was enlisted in the

12   U.S. Marine Corps.

13   Q.   What assignments have you had during your career at the

14   FBI?

15   A.   From approximately 2006 to 2008, I was an intelligence

16   analyst in D.C. working counterterrorism-related matters. Then

17   after becoming an agent, I was transferred here to New York.

18   For about the first year, I worked a variety of things, from

19   violent crime to some cyber investigative stuff, but for the

20   last going on 14 years, I've worked child exploitation cases.

21   Q.   Is there a name for the squad you work on that investigates

22   child exploitation cases in the New York office?

23   A.   Yes, sir. The squad that I'm on now, name has somewhat

24   changed a bit over the years, but it's now known as the Child

25   Exploitation and Human Trafficking Task Force.

1   Q.   Could you describe that task force a little bit.

2   A.   Yes, sir. We are a task force comprised of a number of FBI

3   agents and analysts, as well as a number of New York Police

4   Department detectives. We investigate, really, all matters

5   pertaining to the sexual exploitation of children. That

6   includes various child pornography-related offenses from

7   possession and distribution and production and hands-on offense

8   cases, as well as our luring operations, individuals attempting

9   to meet minors for sex, child abductions, parental kidnappings,

10   and human trafficking.

11   Q.   Can you describe your role, Agent Spivack, in these kinds

12   of investigations you described.

13   A.   Yes, sir. I run the child exploitation sort of side of our

14   task force from human trafficking and child exploitation. I

15   run our —— it's called our undercover platform, or UCL. We

16   have a robust platform of agents who are actively or

17   proactively online attempting to identify individuals trading

18   child pornography, offering to produce their own children for

19   things of that sort.

20   I also have my own cases as a case agent on the squad,

21   and that's sort of just the case-related things that I do. I

22   am also what we call a DExT, digital extraction technician, and

23   I run our sort of DExT lab, which is a forensic lab, a computer

24   forensic lab, that pertains particularly to our squad, our

25   unit.

1   Q. So I'd like to unpack that a little bit, Agent Spivack.

2   But you mentioned the term "child pornography." Do you know

3   that term by any other name?

4   A. Yes, sir.

5   Q. What term would that be?

6   A. Child pornography, or CP, is sort of now being used more

7   frequently as CSAM, or child sexual abuse material.

8   Q. Approximately how many investigations have you worked on,

9   Agent Spivack, involving child exploitation crimes?

10   A. Easily hundreds.

11   Q. What about investigations involving crimes involving child

12   pornography?

13   A. Hundreds, easily.

14   Q. Can you describe your educational background in more

15   detail, sir.

16   A. Yes, sir. Right after high school, joined the U.S. Marine

17   Corps, was enlisted there for five years, and then post-Marine

18   Corps, I obtained a degree in intelligence studies. Sort of ——

19   that's sort of my formal training. And formally, I have had a

20   number of different trainings and certificates from within and

21   outside the FBI, some of which pertain to child exploitation.

22   That training and education consists of training on

23   the actual child pornography platforms there are out there or

24   websites or different techniques and technology that's out

25   there. Trained as a child victim interviewer. I also have

1   robust training in child exploitation undercover activities.

2   I'm a certified online undercover, I'm also a certified

3   in-person undercover, and I'm a lead instructor at the FBI's

4   child exploitation undercover school.

5   Q. Could you describe that instructional experience in your

6   field, sir.

7   A. Yes, sir. The FBI has a fairly robust undercover platform

8   as a whole. Child exploitation undercovers have a special

9   niche. There's a specialized school that anybody who is going

10   to conduct undercover investigations in child exploitation

11   cases must attend and receive a certification. I had been a

12   pivotal part of the child exploitation undercover program for

13   many years, and I want to say it was approximately 2016, we

14   revamped the school which I helped create the curriculum for

15   and have been a lead instructor ever since.

16   Q. Earlier you mentioned something called DExT. Could you

17   describe that in more detail, Agent Spivack.

18   A. Yes, sir. DExT is digital extraction technician. The FBI

19   has a CART team, a CART unit, in every office, and they do the

20   vast majority of computer forensics for each FBI office. DExT

21   is sort of an offshoot for that. It was designed with the idea

22   being that child exploitation cases need to move fast. The

23   time that we execute a search warrant, we need to be reviewing

24   the digital media as expeditiously as possible due to the fact

25   that there had been a number of instances in which hands-on

1   offenders had been identified after reviewing the digital

2   evidence. So this DExT program was created to allow us to not

3   have to submit our electronic evidence to CART, but rather, we

4   can start the image and processing of that, those items,

5   essentially right away.

6   Q.   In your experience, Special Agent Spivack, approximately

7   how many investigations have you been involved in regarding

8   child pornography that involve computers?

9   A.   Essentially, every single one.

10   Q.   And why is that?

11   A.   Well, certainly under the federal cases, child pornography,

12   our squad's charter, our statute, our objective is these child

13   pornography cases which use the use of computers. And in

14   today's world, we sort of refer to computers generically, but

15   we mean, really, anything that has the storage capability or a

16   way to transmit, be it a computer that we all probably can

17   picture in our head to a phone or a thumb drive or, really, any

18   other kind of electronic medium.

19   Q.   As part of your experience in child exploitation

20   investigations, have you done work to identify and review

21   images of child pornography?

22   A.   Yes, sir.

23   Q.   How have you done that?

24   A.   Child pornography cases —— child pornography is really

25   defined in two ways. There's known or already produced child

1   pornography, and there's potentially produced child

2   pornography; meaning that when we are reviewing a device from

3   an offender, there's the child pornography —— the child

4   pornography that we find, we put into the two categories to

5   identify whether or not the offender's responsible for creating

6   the child pornography.

7   There's a number of ways that we do this. Child

8   pornography from every law enforcement organization in the

9   country, as well as the vast majority of Internet service

10   providers, child pornography that is identified is sent to a

11   center in Virginia called NCMEC, or the National Center for

12   Missing and Exploited Children. NCMEC acts as a repository for

13   every entity that submits child pornography, and they catalog

14   it. And they catalog using what's called a MD5, or hash, and

15   what an MD5 is, essentially, an electronic thumbprint. So we

16   can take an image or a video file and obtain its MD5, or

17   thumbprint, and essentially, if that video file or image file

18   was replicated a thousand times and sent to a thousand people

19   and replicated again, the thumbprint, that MD5, will never

20   change. The only time it changes is if the file is actually

21   modified in some capacity.

22   But what this allows us to do is create a very long

23   list of these thumbprints, or these hashes, so that we can

24   analyze child pornography against the hash to identify somewhat

25   immediately whether or not we're looking at child pornography

1   that we've seen before or if we may have the new child

2   pornography that we need to investigate as a contact offense.

3   Q.   Approximately how many images and videos of child

4   pornography have you viewed as part of these investigations?

5   A.   Unfortunately, I suppose for myself it's millions, at

6   least.

7   Q.   Are you familiar with any victims of child pornography

8   offenses?

9   A.   I am.

10   Q.   How so?

11   A.   Again, unfortunately, I suppose, I am a victim point of

12   contact for a number of the known victim that are out there.

13   Some of the child pornography files that we continue to see in

14   law enforcement in general, some of the files that have been be

15   traded, continue to be traded, I have personally been the case

16   agent who —— I've identified those victims.

17   I'm also familiar with the victim notifications and

18   the victim process through NCMEC and how we identify victims

19   and go about identifying them and cataloging, categorizing them

20   for law enforcement.

21   Q.   Agent Spivack, have you testified in court before?

22   A.   Many times.

23   Q.   In what courts?

24   A.   The Southern District here, where we're sitting now, as

25   well as across the river in Brooklyn at the Eastern District of

1   New York, as well as a number of times in the Central District

2   of Illinois.

3   Q.   In what sort of cases have you testified?

4   A.   Primarily child exploitation cases. However, I have

5   testified both as a case agent and witness in other cases as

6   well, violent crime cases, cyber cases, white-collar crime

7   cases, but primarily as an agent in child exploitation.

8   Q.   Have you previously testified in court as an expert in

9   child exploitation investigations?

10   A.   I have.

11   Q.   How many times?

12   A.   I believe it was four times, sir.

13   Q.   Have you ever not been qualified as an expert?

14   A.   No, sir.

15   MR. BRADLEY: Your Honor, we offer Special Agent Aaron

16   Spivack as an expert in investigations related to child

17   exploitation, including the possession and distribution of

18   child pornography by computer and digital means.

19   MR. de CASTRO: No objection.

20   THE COURT: Accepted.

21   Ladies and gentlemen, let me just briefly explain. An

22   expert witness is someone who, by education or training or

23   experience, has acquired learning or experience in a

24   specialized area of knowledge. Such a witness is permitted to

25   express his or her opinions on matters about which he or she

1   has specialized knowledge or training. A party is permitted to

2   present expert testimony to you on the theory that someone who

3   is experienced in a field relevant to the case can assist you

4   in understanding the evidence or in reaching an independent

5   decision on the facts.

6   I will give you instructions at the close of the case

7   about how to assess the credibility of witnesses generally, and

8   those instructions will apply to experts as well as other

9   witnesses. But for now, understand —— or suffices to say that

10   in weighing an expert's opinion, you may consider the expert's

11   qualifications, education, and reasons for testifying, as well

12   as all of the other considerations that ordinarily apply,

13   including all the other evidence in the case.

14   If you find that the opinion of an expert is based on

15   sufficient data, education, and experience, and the other

16   evidence does not give you reason to doubt his or her

17   conclusions, you would be justified in placing reliance on his

18   or her testimony. However, you should not accept witness

19   testimony simply because the witness is an expert. The

20   determination of the facts in this case rests solely with you.

21   Thank you.

22   Mr. Bradley.

23   BY MR. BRADLEY:

24   Q. Agent Spivack, did you become involved in an investigation

25   involving Joshua Adam Schulte?

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1   A.   Yes, sir.

2   Q.   What was your role in the investigation?

3   A.   My role in the investigation was to analyze child

4   pornography that the case squad believed they identified.

5   Q.   What sort of review did you perform?

6   A.   Conducted a sort of general child exploitation review where

7   we reviewed the contents of the computer media that I received

8   for the physical child pornography files, the images and

9   videos, as well as any other files or data that may help to

10   identify the child pornography metadata to determine —— attempt

11   to determine maybe where files were stored, where files came

12   from, dates, things of the sort.

13   Q.   You mentioned media files that you received. Did you

14   extract any of these digital files or devices yourself?

15   A.   No, sir.

16   Q.   What were you looking for, Special Agent Spivack, when

17   conducting this review?

18   A.   Mainly, of course, child pornography, as well as any other

19   artifacts that may support the existence of or trading,

20   transmission of child pornography.

21   Q.   In general terms, what were the results of that review?

22   A.   Found a number of artifact items consistent with being

23   child pornography.

24   Q.   What, Agent Spivack, are some of the things you look for

25   when you are reviewing files for child pornography?

1   A.   Some of the things that we're looking for, aside from the

2   obvious files themselves being child pornography, we look for

3   other media files that are not necessarily child pornography

4   but fall into sort of a —— sort of another category just below

5   child pornography called "child erotica." Child erotica is or

6   are media files that depict children often scantily clad, maybe

7   in bathing suits or underwear, perhaps provocatively posed, but

8   do not reveal the genitals or do not depict the child engaged

9   in a sexual act.

10   Other things that we look for are —— there's keywords.

11   There are sort of phrases that are synonymous with child

12   pornography, things that may not mean anything to many other

13   people in any other context but in child pornography are very

14   specific and certainly indicate the presence of child

15   pornography.

16   MR. de CASTRO: Your Honor, instruction.

17   THE COURT: All right. Well, fine.

18   Ladies and gentlemen, you heard the agent make

19   reference to something called "child erotica." I have some

20   reason to believe he will testify a little bit more about that

21   and about some of that that was found on some of the devices

22   that you've heard about. Let me stress to you that child

23   erotica is not illegal, so it does not violate the law. And

24   Mr. Schulte is not charged with possession of child erotica.

25   He is charged, as you know, with receipt, possession, and

1   transportation of child pornography.

2   So child pornography is illegal, child erotica is not,

3   and it is important for you to understand and respect that

4   distinction.

5   Go ahead.

6   MR. BRADLEY: Ms. Collins, could you please show Agent

7   Spivack Government Exhibit 2301.

8   Q. Agent Spivack, in front of you is a document. It's been

9   marked for identification as Government Exhibit 2301. Do you

10 see that on your screen, sir?

11 A. Yes, sir, I do.

12 Q. What is that document?

13 A. This is a series of slides that contain various excerpts

14 from my analysis.

15 Q. Will this presentation assist you in explaining your

16 methodology and conclusions today?

17 A. Yes, sir.

18 Q. Are some of those conclusions based on exhibits that are

19 very lengthy and long?

20 A. Yes, sir.

21 Q. What types of exhibits are those?

22 A. Generally speaking, really two types: One being the actual

23 media files themselves, which are in the thousands and quite

24 voluminous; the other is file listings or directory listings of

25 files, which again are very voluminous list.

1   Q.   Would it be difficult to display those files in their

2   entirety in court today?

3   A.   It would.

4   Q.   Does Government Exhibit 2301 accurately summarize and

5   excerpt relevant parts of those exhibits you've described?

6   A.   It does, yes, sir.

7   MR. BRADLEY: Your Honor, the government offers

8   Government Exhibit 2301.

9   MR. de CASTRO: No objection.

10   THE COURT: Admitted.

11   (Government's Exhibit 2301 received in evidence)

12   THE COURT: Ladies and gentlemen, let me give you

13   another instruction. As the case proceeds, I assume there will

14   be fewer of these, but each time you're hearing something for

15   the first time, I'll try to give you some guidance.

16   The Rules of Evidence permit a party in certain

17   circumstances to offer a chart or a summary in place of or in

18   addition to other evidence, testimony, or documents in order to

19   save time and avoid unnecessary inconvenience, that is, in

20   particular, for example, where the other evidence is voluminous

21   and would be hard to examine in court.

22   Those charts and summaries, including what is now in

23   evidence as Government Exhibit 2301, are no better than the

24   testimony or the documents upon which they are based.

25   Therefore, you are to give no greater consideration to that

1   evidence than you would give to the evidence upon which such a

2   chart or summary is based. It is for you to decide whether

3   they correctly present the information contained in the

4   testimony and in the exhibits on which they were based and, as

5   with all the other evidence, up to you what weight, if any, to

6   give to this exhibit.

7   You may proceed.

8   MR. BRADLEY: May we publish, your Honor?

9   THE COURT: You may.

10   BY MR. BRADLEY:

11   Q. So let's turn to slide 2 of the presentation, Special Agent

12   Spivack.

13   Specifically, you mentioned finding files of child

14   pornography. Approximately how many child pornography files

15   did you find on the defendant's computer?

16   A. I found approximately 3,211 files of child pornography.

17   Q. Did you also identify child erotica images or files?

18   A. Yes, sir.

19   Q. Approximately how many child erotica files did you find?

20   A. Approximately 14,169.

21   Q. Where on the defendant —— well, where on the defendant's

22   computer did you find these child pornography files?

23   A. Specifically, from the defendant's computer there were two

24   real files. One is the first item you see here. It's called

25   the "volume" —— it's call "volume." It's a very large file

1   called "volume." The second was on this file called Linux

2   Mint.vdi, it's a virtual disc image.

3   Q. When we talk about files, what type of files are you

4   referring to?

5   A. Image and video files of child pornography.

6   THE COURT: Can you explain what you mean by a virtual

7   disc image.

8   THE WITNESS: Sure. Virtual disc image, as on the

9   chart here, is located under a folder called "VMs," virtual

10   machines. Virtual disc image ‑‑ excuse me, virtual machine and

11   virtual disc, it's a computer within a computer. It allows you

12   to access a file that opens up what looks like a new computer.

13   You can have a virtual hard drive attached to it, a virtual

14   anything, essentially. You can do parameters, I guess,

15   depending ‑‑ you can do just about anything within this virtual

16   computer as you could as if it were your actual computer.

17   Q. Were you aware of any encryption on either of these two

18   files in which you found child pornography?

19   A. Yes, sir.

20   Q. Did you decrypt any of those files yourself as part of this

21   investigation?

22   A. I did not, no, sir.

23   Q. Did you find any adult pornography on the defendant's

24   computer?

25   A. Yes, sir.

1   Q.   Let's turn to slide 3 of the presentation.

2   I'd like to start with the virtual machine you just

3   testified to, Agent Spivack. Did you review this location as

4   part of your review in this investigation?

5   A.   Yes, sir.

6   Q.   Where was that virtual machine located on the defendant's

7   computer?

8   A.   The defendant's computer, the "Documents" folder, the main

9   "Documents" folder which is sort of under the root or the

10 uppermost part of a hard drive, under "Documents" folder, there

11 are a series of folders starting with VM, or virtual machine,

12 and the Mint.vdi was located within that.

13 Q.   Could you just describe what we're seeing in Government

14 Exhibit 612 at the bottom of the slide.

15 A.   Yes, sir. At the bottom of the slide highlighted in the

16 red box is the Linux Mint.vdi. That is that actual file, and

17 it is located, again, within the subfolders of documents, VMs,

18 and then Linux Mint.

19 Q.   Let's turn to slide 4 of the presentation. Could you

20 describe what we are looking at here in Government Exhibit 476.

21 A.   Yes, sir. This is a file listing of which at the very top

22 and highlighted in the red box is a file called "data.bkp."

23 Q.   Before we get into that, what is this file a listing of?

24 A.   So we're inside the virtual machine, the Linux.vdi, the one

25 slide ago the Linux.vdi, that .vdi is what we're looking at.

1   So this is a file listing from that VDI's uppermost or root

2   directory.

3   Q.   Is there another —— based on looking at this table, is

4   there another name for that uppermost or root directory?

5   A.   Yes, sir.   This is the home directory specifically.

6   Q.   Is there any user attributed to this home directory?

7   A.   Yes, sir.   It is under the Josh decrypted home directory.

8   Q.   How specifically is this table organized, Special Agent

9   Spivack?

10 A.   This table is organized with the largest file on top, which

11 is the data.bkp and then descends down to the smallest file in

12 terms of physical size.

13 Q.   How large is that data.bkp file compared to the other files

14 in the Josh home directory?

15 A.   It is significant.   I believe 500 gigabytes, if I'm not

16 mistaken.   It's significantly larger than the remaining.

17 Q.   As part of your work in this investigation, did you review

18 that data.bkp file further?

19 A.   Yes, sir.

20 Q.   We can get into it in more detail, but in general terms

21 what, if anything, was the result of that review?

22 A.   Numerous files of child pornography.

23 Q.   Before we get into that data.bkp container, did you see or

24 find any child pornography at this level of home directory of

25 the machine?

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1   A.   Yes, sir.

2   Q.   What, if anything, did you find?

3   A.   At this level that we're looking at here, identified a few

4   hundred files of child pornography that were contained within

5   what's called the thumbnail or thumbcache.

6   Q.   What is a thumbnail or thumbcache?

7   A.   So thumbnails or thumbcache, they're images that are

8   created when you are viewing something. For example, if you

9   are opening a media file, if you are navigating media files on

10 the Internet, the thumbcache sort of takes sort of a snapshot

11 of what's happening. But it's indicative of those files being

12 viewed in this sort of —— at this level or within the VDI.

13 Q.   Let's move on to slide 5, Agent Spivack. Could you

14 describe what you are —— what the slide shows here on

15 Government Exhibit 603.

16 A.   Yes, sir. Moving a step further, the last file in the last

17 slide was that data.bkp that was highlighted in red. In this

18 we are within that data.bkp file, and we're looking at the

19 folder structure of that.

20 Q.   You just mentioned a folder structure. Could you describe

21 that folder structure within the data.bkp file.

22 A.   Yes, sir. So this is an excerpt of that file or folder

23 structure, in which case we see a number of folders, including

24 downloads, "Kids," "Young," "NN" and "New," among others.

25 Q.   Where did you find the child pornography in this folder

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1   structure?

2   A.   In essentially all of these folders.

3   Q.   In front of you, Agent Spivack, should be a thumb drive.

4   It should be marked as Government Exhibit 1001. Do you see

5   that?

6   A.   I do.

7   Q.   Does this thumb drive contain copies of the child

8   pornography and child erotica that you found in this Linux

9   virtual machine?

10   A.   It does.

11   Q.   Are the files in Government Exhibit 1001 organized in any

12   way?

13   A.   They are.

14   Q.   How are they organized?

15   A.   They are organized into two folders, child pornography and

16   child erotica.

17   Q.   Let's move on further into the data.bkp in slide 6. Can

18   you describe what's shown in Government Exhibit 604.

19   A.   Sure. One of the folders within data.bkp was a folder

20   called "New," new, n-e-w. What we're looking at here is I

21   screenshot or took a snapshot of some of the files that we're

22   seeing within that directory from that folder.

23   Q.   Is this the entire folder's contents?

24   A.   No, sir, it is not.

25   Q.   On the left side of the screen, could you describe these

1   files that are ending in .rar.

2   A.   Yes, sir.   These .rar files, or RAR files, are essentially

3   zip files, which are a compressed folders.   Essentially, it's a

4   way to take a folder and compress it to where it almost looks

5   like a file, and then it allows you to make that folder a

6   little smaller.   It can be transferred a little easier, but,

7   again, it essentially makes it look like a file.

8   Q.   Did you review the contents of these .rar files?

9   A.   Yes, sir.

10   Q.   What, if anything, was the result of that review?

11   A.   The contents within these RAR files is child pornography

12   and child erotica as well.

13   Q.   On the right side of the screen, could you describe these

14   files that you found in the "New" folder.

15   A.   Within the "New" folder also contained these files which ——

16   all of them depicted end in a file extension that indicates

17   they are video files.

18   Q.   What kinds of files are these, Agent Spivack?

19   A.   These are all child pornography files.

20   Q.   Did you review them?

21   A.   I did.

22   Q.   Is this all of the child pornography you found in the "New"

23   folder?

24   A.   No, sir.

25   Q.   And just because some of it may appear to be small on the

1   screen, can you just describe one of these. Let's take the

2   first one, for example.

3   What is the file name on that?

4   A.   That is "Kait 5yo forest3.wmv."

5   Q.   Just focusing on this sample here, do you recognize any of

6   these file names in your experience?

7   A.   I do, yes, sir.

8   Q.   How do you recognize them?

9   A.   I recognize the —— there are terms in here or acronyms in

10   here, phrases in here, that are consistent with child

11   pornography and things that I've seen in almost every

12   investigation.

13   Q.   Could you describe a few examples of that.

14   A.   Yes, sir. PTHC is referenced in here a number of times.

15   PTHC stands for preteen hard core. There are a number of

16   instances in here where there is a number followed by "YO." In

17   child pornography investigations, that is to indicate the age

18   of the child depicted. There's the, I guess, acronym "pedo,"

19   p-e-d-o, which, again, in child pornography investigations is

20   short for pedophile.

21   Q.   Let's move on, then, to slide 7. We'll get to those

22   abbreviations a little bit more in a few minutes. Let's look

23   at the "Downloads" folder.

24   Did you open that folder in the data.bkp file?

25   A.   Yes, sir.

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1   Q. What was inside that folder?

2   A. What was inside the "Downloads" folder was a number of

3   additional folders which also contained child pornography.

4   Q. Could you describe what we are looking at on the left side

5   of the screen in Government Exhibit 605.

6   A. Yes, sir. We are looking at the —— from top down, a

7   screenshot of some of the folders that are within the

8   "Downloads" folder.

9   Q. What about on the right side of the screen?

10   A. Some additional folders that were out of view of the

11   screenshot.

12   Q. I'd like to focus briefly on the subfolder on the right

13   side of the screen titled "11 Yr Old." Did you review that

14   subfolder?

15   A. I did.

16   Q. Let's turn to slide 8. What was inside that "11 Yr Old"

17   folder.

18   A. There were a number of images all appearing to depict the

19   same child. The files that were within this folder were either

20   child pornography or child erotica.

21   Q. Could you describe what is shown on the screen here in

22   Government Exhibit 607.

23   A. Yes, sir. We are looking at, again, another excerpt of

24   some of the image files that are within this "11 Yr Old"

25   folder.

1   Q.   These are not all the files in the "11 Yr Old" folder?

2   A.   They are not.

3   Q.   How would you describe these file titles?

4   A.   These files — these file names have random strings of

5   numbers. They are not sort of what we saw in the previous

6   slides with the use of PTHC or Pedo.

7   Q.   In your experience, Agent Spivack, what is the most common

8   way to acquire child pornography?

9   A.   The most common, aside from the Internet, I suppose, one of

10 the most prolific ways of trading child pornography, receiving

11 it or distributing it, is through what's called torrents or

12 other peer-to-peer networks.

13 Q.   Is that also over the Internet?

14 A.   It is.

15 Q.   Based on the presence of child pornography in the

16 "Downloads" folder, did you form any opinions based on your

17 experience about where those files came from?

18 A.   Yes, sir.

19 Q.   What was that opinion?

20 A.   Well, that it was obviously downloaded. The vast majority

21 of peer-to-peer programs, the default for when you download

22 something from these peer-to-peer networks is the "Downloads"

23 folder. My experience has been, not just from reviewing these

24 cases but also when we do sort of our proactive work, is that

25 when you create — when you setup a peer-to-peer account, you

1   have an ability to download directly to your "Downloads"

2   folder, and oftentimes, depending on what you're downloading

3   on, it may maintain the same folder structure as what you're

4   downloading. In this case, it's conceivable that "11 Yr Old"

5   was the folder that was being downloaded from one of these

6   programs.

7   Q.   Let's move on to slide 9. What are we about to look at

8   here, Special Agent Spivack?

9   A.   We're about to look at an erotica image from the images

10   that were sort of reflected on the previous slides.

11   Q.   Was that specifically from the "11 Yr Old" subfolder?

12   A.   Yes, sir.

13   Q.   Excuse me. You already said that.

14   Your Honor, this might be an appropriate time for the

15   other limiting instruction.

16   THE COURT: All right. Ladies and gentlemen, as I

17   mentioned during jury selection, I do anticipate that during

18   trial you will see some of the images in this case, a few

19   images and a video, I believe. I think what you're about to

20   see are those files. Because this is a public criminal trial,

21   I have ordered that those files be shown to you in their

22   original form —— you're the jury, and you need to see the

23   evidence in its original form —— and then briefly again to you

24   and to the public, anyone who is in the courtroom, but with

25   redactions in order to protect the identity of the victims that

1   are depicted in the materials. That is why in some of the

2   images you will see the images twice, one in its original form

3   and once in redacted form.

4   In addition, I expect that you may see, I think

5   Mr. Bradley just referenced it, at least one image of what the

6   witness has identified as child erotica. I remind you again

7   that Mr. Schulte is not on trial for possessing images of child

8   erotica, and indeed, possessing images of child erotica is not

9   illegal; it's not against the law. You may not consider

10   evidence of the child erotica as evidence of the defendant's

11   bad character or his propensity to commit the crimes with which

12   he is charged. Otherwise, however, you may consider such

13   evidence as you would any other evidence in this case regarding

14   the charged offenses, which, as you know, are the receipt,

15   possession, and transportation of child pornography.

16   With that, you may proceed.

17   MR. BRADLEY: Thank you, your Honor.

18   THE COURT: Bear with us.

19   All right. Now you may proceed.

20   MR. BRADLEY: Ms. Collins, let's turn to the next

21   slide and let us play this for approximately five seconds,

22   please, and take it down.

23   (Exhibit published)

24   BY MR. BRADLEY:

25   Q. Now, Special Agent Spivack, let's take a look at an example

1   of child pornography that you recognized and identified in that

2   same subfolder. Could you describe what we're about to look

3   at.

4   THE COURT: Mr. Bradley.

5   MR. BRADLEY: I'm sorry. I went out of turn.

6   THE COURT: First of all, can you just identify the

7   exhibit number of what was just depicted on the screen.

8   MR. BRADLEY: My apologies, your Honor. That was

9   Government Exhibit 1001-2.

10   THE COURT: All right. And next, can we turn the

11   public monitor back on, please, and I take it you'll show the

12   next slide?

13   MR. BRADLEY: Yes. For the record, I did talk out of

14   turn. This will be the redacted example of Government

15   Exhibit 1001-2. It's been marked for identification as

16   Government Exhibit 1001-2-R, which we'll show on the screen now

17   for approximately five seconds.

18   THE COURT: All right. One second. Seem to be having

19   some technical difficulties here.

20   All right. Now, please put 1001-2-R on the screen.

21   MR. BRADLEY: We'll do that now.

22   (Exhibit published)

23   THE COURT: All right. You may take it down.

24   BY MR. BRADLEY:

25   Q. Special Agent Spivack, now that we've shown both versions

1   of the child erotica example, I'd like to discuss an example of

2   the child pornography you found in that 11 Yo subfolder. Could

3   you describe what we're about to look at, sir.

4   A.   The child pornography image that we're about to look at is

5   an image depicting the same child. She is —— appears to be

6   roughly in the same position in that home or dwelling. She is

7   covered up on top, but she is —— her underwear is down by her

8   ankles. She's sitting down, and she is digitally inserting

9   herself in her vagina.

10   MR. BRADLEY: All right. Your Honor, we'll now play

11   and publish for the jury that child pornography example, and

12   we'll put it on the screen for approximately five seconds.

13   THE COURT: The exhibit number please?

14   MR. BRADLEY: The exhibit number for this, your Honor,

15   is Government Exhibit 1001-3.

16   THE COURT: You may proceed.

17   MR. BRADLEY: Thank you.

18   (Exhibit published)

19   THE COURT: And let's show the -R and turn the screen

20   back on, please. All right.

21   MR. BRADLEY: We'll show that now, the redacted

22   version, for approximately five seconds.

23   (Exhibit published)

24   THE COURT: All right. Thank you.

25   BY MR. BRADLEY:

1   Q. Agent Spivack, were there any other files like this, this

2   child pornography, in the "11 Yr Old" subfolder?

3   A. There were worst images depicted, yes, sir.

4   Q. What sort of sexual acts did you see depicted in that

5   folder involving that victim?

6   A. There's several images depicting this victim engaging in

7   oral sex with what appears to be an adult male.

8   Q. So let's move on, Special Agent Spivack.

9   Earlier, and this is now slide 21, you mentioned

10   different abbreviations or keywords for certain child

11   pornography files. You mentioned one of them was PTHC,

12   correct?

13   A. Correct.

14   Q. Can you just remind us what PTHC stands for.

15   A. Preteen hard core.

16   Q. Why would files be named like this?

17   A. Child pornography has generally been given names like PTHC

18   or some of these other acronyms to make it easier for

19   individuals interested in finding it able to find it. It's

20   why, when you review child pornography file names, they are

21   generally very specific, sometimes quite long, but generally

22   speaking, they depict what they say they represent. If it

23   discusses the age of a child, 11 Yo, 8 Yo, it generally depicts

24   a child appearing to be that age, and so forth.

25   So it really has —— it originated as a means for

1   individuals to conduct searches for these files, oftentimes

2   through an IRC chat program or a peer-to-peer network that

3   allows them to find specifically what they're looking for.

4   Q.   Approximately how many child pornography files did you see

5   in your review of the defendant's computer that had this PTHC

6   abbreviation?

7   A.   Approximately 99.

8   Q.   And what is shown here on Government Exhibit 481?

9   A.   What is showing here is just an example of some of the 99

10   files that contain "PTHC" somewhere within the file name.

11   Q.   Did you review these files as part of your investigation?

12   A.   Yes, sir.

13   Q.   And what do they, in general terms, do they show?

14   A.   In reviewing these files, they generally depict exactly

15   what they say they are in the title, very young children

16   engaged in a variety of sexual acts with children and adults.

17   Q.   Turning to slide 22, what is shown here on the screen?

18   A.   These are just a handful of additional file names that

19   contain PTHC in the name.

20   Q.   Did you review these files as well, Agent Spivack?

21   A.   Yes, sir.

22   Q.   What, in general terms, did they show?

23   A.   Young children engaged in sexual acts.

24   Q.   Sexual acts with whom, sir?

25   A.   I believe these files specifically were with adults.

1   Q.   Let's move on to slide 23. You mentioned earlier the

2   abbreviation YO. What does that mean?

3   A.   Generally refers to year old, like years old.

4   Q.   Did you find title —— files titled "YO" during your review

5   of the data.bkp container in the defendant's computer?

6   A.   Yes, sir.

7   Q.   Were these approximately how many did you find?

8   A.   Approximately 242.

9   Q.   Were these files associated with any numbers, these "YO"

10 files?

11 A.   Yes, sir.

12 Q.   What do you understand those numbers to represent?

13 A.   The age of the child depicted.

14 Q.   Based on that, approximately what was the age range that

15 you saw in these files, child pornography files?

16 A.   In the file listings we saw everything from age 2, or 2 YO,

17 up to 15 YO.

18 Q.   Did you review those files?

19 A.   Yes, sir.

20 Q.   What was the result of that review?

21 A.   All of those files appeared to depict a child that appeared

22 to be approximately that age that it was —— that was

23 represented in the file name.

24 Q.   Could you describe what's shown here on Government

25 Exhibit 481.

1   A.   Yes, sir. We're looking at a screenshot again that

2   contains, in this case, file names that have the YO within

3   them.

4   Q.   Is this all of the files that were labeled "YO" in the

5   data.bkp container of the defendant's computer?

6   A.   No, sir.

7   Q.   Did you review this sample of files shown here on the

8   screen?

9   A.   Yes, sir.

10   Q.   What did they depict?

11   A.   These files all depict very young children engaged in

12   sexual acts, more often than not with adults, variety of

13   different sexual acts and objects.

14   Q.   Turning to slide 24, what is shown on the screen now?

15   A.   Same thing. This is a few other files that contained a

16   number followed by the YO.

17   Q.   Did you review these files as well, sir?

18   A.   Yes, sir.

19   Q.   I'd just like to direct your attention to —— there's a

20   third file down from this callout. It ends in "2 YO

21   Rape.mpg." Do you see that file, sir?

22   A.   I do.

23   Q.   Did you review that as part of your investigation?

24   A.   I do.

25   Q.   And what does that video depict?

1   A.   It depicts an adult male raping a two-year-old child.

2   Q.   Turning to slide 25, you mentioned Pedo as another keyword

3   or abbreviation. Did you see files marked as "Pedo" in your

4   review of the data.bkp container of the defendant's computer?

5   A.   Yes, sir.

6   Q.   Approximately how many files?

7   A.   There were approximately 39 files.

8   Q.   What do you understand the abbreviation or term "Pedo" to

9   mean?

10   A.   Generally refers to pedophile, pedophile.

11   Q.   Could you describe what's shown here on Government

12   Exhibit 481.

13   A.   Yes, sir. Again, similar to the last couple of slides,

14   looking at an excerpt of files who within the file name contain

15   Pedo.

16   Q.   You just said "excerpt." Is this every file that's been

17   marked "Pedo" in your review of the data.bkp container?

18   A.   It is not.

19   Q.   Did you review these files as part of your investigation?

20   A.   Yes, sir.

21   Q.   What generally do they show?

22   A.   These again depict sort of what they indicate in their file

23   names. They depict young children engaged in sexual acts

24   oftentimes with adults.

25   Q.   Do you recognize any other abbreviations or file titles

1   that we haven't talked about yet, sir?

2   A.   Yes, sir.

3   Q.   Could you describe those, please.

4   A.   So, among others, we see in this slide something that's

5   similar to PTHC is PTSC. Whereas PTHC stands for preteen hard

6   core, PTSC stands for preteen soft core. There's also the

7   three letters LSM that is seen here a handful of times. LSM is

8   synonymous with a series called "LS Models" or "LS Magazine,"

9   Ukrainian-based child pornography production company from

10   probably 15, 20 years ago that was very prolific online. There

11   are —— saw in a slide or two the OPVA, was the name, which

12   stands for Onion Pedo Video Archive. It's Tor-based type of

13   child pornography files. Aside from sort of those, you also

14   see terms that we see often enough like Hussy fan is on here, I

15   believe, Kidzilla, and then you also see name Tori, I believe,

16   is referenced in here quite often. We see names Tori or Jenny

17   or Vicky often in child pornography cases as well.

18   Q.   Let's talk more about those names, Agent Spivack. I'd like

19   to focus on one of those examples. You mentioned Jenny. Who

20   is Jenny?

21   A.   Jenny is not her real name, but Jenny is —— it's called a

22   series. It's —— there are a number of files depicting the same

23   child. She is referred to as Jenny. And generally speaking,

24   the child pornography files that depict her have the word

25   "Jenny" in the title. And Jenny is a very young, young child.

1   I believe she's seven or eight in many of the child pornography

2   files in which she is abused, and it's one of the more prolific

3   series of child pornography that has been in existence.

4   Q.   How many files did you find that were named "Jenny" in the

5   data.bkp container on the defendant's computer?

6   A.   There were 99.

7   Q.   And did you review these files?

8   A.   I did.

9   Q.   What, in general terms, did they show?

10   A.   They showed Jenny. They showed Jenny. There were a number

11   of files. These files listed here are image files on the left

12   and then the couple of video files on the right. In totality,

13   they show most of what Jenny, the Jenny series, is — consists

14   of, which is she's oftentimes bound in the videos at her wrists

15   and at her ankles with rope. She's depicted wearing a choke

16   collar. In some cases she's tied down over what appears to be

17   a bench. Aside from an adult male who engages her in sexual

18   conduct, there is also a dog who licks her vagina, and she also

19   engages the dog in oral sex.

20   Q.   Let's move on, Special Agent Spivack, to slide 27. I think

21   we'll talk a little bit more about Jenny later on.

22   Apart from the "Downloads" folder, did you find any

23   indication of where these files in the data.bkp container on

24   the defendant's computer came from?

25   A.   Yes, sir.

1   Q. Could you describe that in more detail.

2   A. Yes, sir. There's a text document that was found. It's

3   listed here under File Name with a series of LRUX2.txt. It's a

4   text document that contains a number of what appear to be links

5   or Internet-based links with names indicative of child

6   pornography.

7   THE COURT: All right. Let's stop there because it's

8   precisely 11:30.

9   Ladies and gentlemen, as I told you, we'll aim to take

10   our break, one half-hour break, at 11:30, and it is that time.

11   Let me give you a couple instructions.

12   First, given that the break is relatively short, you

13   should just stay in the jury room, and hopefully some of you

14   brought light fare, snack or light lunch. My guess is there is

15   also some breakfast left over. In any case, you should stay in

16   the jury room.

17   Do not discuss the case. Continue to keep an open

18   mind. You've now heard some of the evidence but not all of it.

19   Again, it's important that you not discuss the case and that

20   you keep an open mind until the conclusion of the case and your

21   deliberations begin. Obviously, don't do any research about

22   the case.

23   With that, you are excused to go into the jury room.

24   Please take your notebooks, all your belongings with you, and

25   wait for Ms. Smallman to come get you. Let's be ready to go at

N9CHSch1   Spivack – Direct

1   exactly noon, and we'll see you then.

2   Thank you.

3   (Jury excused)

4   (Continued on next page)

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1   (Jury not present)

2   THE COURT: You may be seated.

3   Agent Spivack, you may step down. Please be back in

4   the courtroom a minute or two before noon ready to go, and we

5   will continue with your testimony at that time.

6   THE WITNESS: Yes, sir.

7   THE COURT: Government, the copy of 2301 that I seem

8   to have doesn't correspond to what's being shown. There seems

9   to be other slides either taken out or added. I'm not sure.

10   Can you just make sure we get the updated version.

11   MR. BRADLEY: I'm happy to take a look, your Honor.

12   We did add some blank placeholder slides just to make sure

13   there was an appropriate transition to account for the

14   technical time. I don't believe there's been any substantive

15   changes, though.

16   THE COURT: All right. So then it's fine if it's just

17   pagination.

18   So I can plan accordingly, there are two additional

19   files that I take it you'll be showing, one, the video and one

20   other photograph. Is that correct?

21   MR. BRADLEY: That's correct, your Honor.

22   THE COURT: Are they in succession or are they

23   separated? What's the plan there?

24   MR. BRADLEY: They're separated, your Honor. The

25   video will be one last example from the virtual machine, and

1   then the final file, the image file, is toward the end, I

2   expect, of Special Agent Spivack's testimony, and it will focus

3   on that second container known as "volume."

4   THE COURT: All right. Very good. Anything else from

5   the government?

6   MR. BRADLEY: No, your Honor.

7   THE COURT: Mr. de Castro?

8   MR. de CASTRO: No, Judge.

9   THE COURT: So please be ready to go a minute or two

10   before noon, and we will get started. Assuming that there's

11   nothing to discuss at that time, Agent Spivack can be on the

12   stand and ready to go.

13   Thank you.

14   (Lunch recess)

15   (Continued on next page)

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N9c3sch2   Spivack - Direct

1   AFTERNOON SESSION

2   12:00 p.m.

3   (In open court; jury not present)

4   THE COURT: I gather there is a request regarding

5   Mr. Schulte's keeping of his legal documents during breaks.

6   MR. De CASTRO: That's correct, your Honor. My

7   understanding is that the marshals do not permit him to have

8   any of his legal work with him when we meet, unless the Court

9   allows it, and I'd ask the Court to issue an order orally, and

10   then maybe a written order going forward so the marshals can

11   permit him to have his legal work when we meet with him.

12   THE COURT: If it's okay with the marshals and they

13   just need my okay, it's okay with me. I have no objection if

14   they want to look through it to make sure there is nothing in

15   the documents.

16   THE MARSHAL: Yes, your Honor.

17   MR. De CASTRO: Not just during breaks. Before and

18   after court too.

19   THE COURT: That's consistent with the protocols

20   during the last trial when obviously Mr. Schulte was

21   representing himself. But in any event, it makes sense here

22   too.

23   Are we ready to continue?

24   MR. DENTON: I wanted to note for the record, since I

25   wasn't sure this morning, the juror involved in the

1   conversations with some of the agents was Juror No. 5.

2   THE COURT: Given we put that to rest, we didn't need

3   to do anything further, but thank you.

4   Mr. Bradley, any estimate of how much more direct you

5   have?

6   MR. BRADLEY: I'd say approximately an hour. Your

7   Honor, also just to note for the record, the presentation

8   itself is substantively the same. We confirmed that. It was

9   just the addition of the placeholder slides I mentioned during

10   the break.

11   THE COURT: No need to substitute it for my purposes.

12   Thank you. We'll get the jury and continue.

13   (Jury present)

14   THE COURT: Welcome back, ladies and gentlemen. We

15   will continue with the direct testimony of Agent Spivack.

16   Agent, I remind you that you remain under oath.

17   THE WITNESS: Yes, sir.

18   THE COURT: With that, you may proceed.

19   MR. BRADLEY: Thank you, your Honor.

20   BY MR. BRADLEY:

21   Q. Agent Spivack, before the break, you testified regarding a

22   text file with certain web addresses. Do you recall that?

23   A. I do, yes, sir.

24   Q. That's on slide 27 of your presentation, government Exhibit

25   2301. Do you see that on the screen?

1   A. I do; yes, sir.

2   Q. Just to confirm. And did you review that text file, sir?

3   A. I did.

4   Q. Where, just looking at Government Exhibit 481 here, where

5   did you locate that text file?

6   A. So this is, we're in the data.bkp file. We are in the

7   downloads folder of that file.

8   Q. The data.bkp file in the virtual machine of the defendant's

9   computer?

10   A. Correct.

11   Q. Let's turn to slide 28. What is shown here on Government

12   Exhibit 582?

13   A. What is shown here is a screenshot of that text file. Not

14   in its entirety, but the first few 30 or so lines of the text

15   document.

16   Q. So could you describe what we are looking at here on the

17   left side of this text file.

18   A. Yes, sir. So, lines 1 through 30 as you see them on your

19   screen are URLs, internet addresses. Specifically to a site

20   called anonfiles.com.

21   Q. What is anonfiles.com?

22   A. Anonfiles or anonymous, generally speaking, is -- this site

23   is a site that's located on the Tor network or The Onion

24   Router, commonly referred to as the dark web. It generally is

25   a place where you can find or one can find a variety of

1   different things such as child pornography or other sort of

2   elicit material.

3   Q. Have you encountered this anonfiles website in your

4   experience investigating child exploitation cases?

5   A. Yes, sir. This or variations of it.

6   THE COURT: You the used the term "dark web." Can you

7   explain what that is.

8   THE WITNESS: I mean dark web more generally speaking

9   as the Tor, something that may be a little bit more familiar to

10   people as the dark web.

11   Dark web or Tor somewhat synonymous with each other.

12   It is an internet that anyone can access, but it allows you to

13   do so anonymously. So versus going on the open internet, which

14   there is a variety of ways that your identity can be identified

15   by, say, law enforcement, the dark web or Tor is an anonymous

16   internet essentially.

17   Q. Next to those anonfiles.com web addresses are some

18   additional text on the right side of the screen. Could you

19   describe those, please.

20   A. Yes, sir. So at the end of each of the URLs or web address

21   there is the hyphen and then a description. These descriptions

22   are consistent with what is described of that link of each

23   link.

24   Q. Were any files in the data.bkp container in the virtual

25   machine consistent with these descriptions?

1   A.   Yes, sir.

2   Q.   Let's turn to the next slide. Slide 29.

3   What are we looking at here, Agent Spivack?

4   A.   So what we are looking at here is sort of an excerpt of

5   what we were just looking at, lines 13 through 20,

6   specifically. What we see on the left side is the URL or that

7   web address that we were just speaking about in the slide

8   before. And then on the right side is a file path to a video

9   file or a document file that is consistent with being what's

10   referenced in the link.

11   Q.   Those file paths that are consistent with the link, where

12   did you find those?

13   A.   Those were all found underneath the root folder of this

14   same data.bkp in the virtual machine in the folder called

15   "new."

16   Q.   Did you review these files, these corresponding file names

17   on the right side of the table here?

18   A.   Yes, sir.

19   Q.   What, in general, do they depict?

20   A.   The first I believe four files that we see, the item number

21   13, 14, 48 and 9, those specifically are all child pornography

22   videos.

23   Q.   I'd like to focus on that last row of the table, Agent

24   Spivack, with the label on the left side "pedo guidebook and

25   magazines." Do you see that?

1   A. I do.

2   Q. And did you identify any files in the data.bkp container

3   corresponding with that description?

4   A. Yes, sir.

5   Q. How many files?

6   A. There were four, sir.

7   Q. Where are they listed on this table?

8   A. They are on the right column, the very last row. They all

9   end with the extension PDF.

10 Q. I would like to focus on the first file listed on the last

11 row. That's titled "Alice Lovers Magazine Issue 1.PDF." Do

12 you recognize that name?

13 A. I do.

14 Q. How do you recognize it?

15 A. Alice Lovers had been a fairly common or popular name.

16 Similar to the search name -- search term I was referencing

17 earlier. Alice Lovers was among some of the popular ones

18 back -- this is going back probably 10 years. Not as common

19 today. But Alice Lovers was often associated with sort of

20 these magazines or guidebooks that essentially would outline

21 for people how to find child pornography, how to maintain

22 security or anonymity, or in some cases how to engage children

23 in person.

24 Q. Did you find these magazines and guidebooks in the data.bkp

25 container in the virtual machine?

1   A. Yes, sir.

2   Q. Let's turn to the next slide. Slide 30. Could you

3   describe what we are looking at here on Government Exhibit 579,

4   sir.

5   A. Yes, sir. So, this Alice Lovers Magazine PDF file, this is

6   the cover page of that PDF.

7   Q. Where was this located?

8   A. This was in the "new" folder of the data.bkp.

9   Q. Looking at the cover page here, it makes reference to a

10 girl lover.

11   What is a girl lover in your experience, Agent

12 Spivack?

13 A. So girl lover is another popular term, girl lover or boy

14 lover. What those terms indicate is the adult's attraction to

15 a minor, in this case, girl. Girl lover. But an attribution

16 to a minor child.

17 Q. Let's turn to slide 31. Were there any articles inside

18 this Alice Lovers Magazine issue that were relevant to your

19 investigation?

20 A. Yes, sir.

21 Q. What is that?

22 A. I was referencing Tor earlier, those anonymous files of

23 anon.com links. In this PDF is an article on Tor. Again, The

24 Onion Router is what it stands for.

25 Q. Have you encountered Tor in your investigations of child

1   pornography and child exploitation?

2   A.   Yes, sir.

3   Q.   How so?

4   A.   Through our own investigations and my own investigations,

5   we have encountered offenders who have used Tor to find child

6   pornography. The FBI also engaged in a very large-scale

7   operation that involved hundreds of offenders who were using

8   specific Tor sites to engage in the trading of very explicit

9   and young child pornography.

10   Q.   Let's turn to slide 32. What, if any, evidence of Tor

11   activity did you find in the data.bkp container on the

12   defendant's computer?

13   A.   Well, what we are looking at here, the very top line is in

14   reference to the install the Tor browser, which is the internet

15   browser that one would use to access Tor.

16   In addition to that, the items that are highlighted in

17   red end in dot onion. dot onion is a reference to like a

18   dotcom. Dot commercial or dot gov. Dot onion is what would be

19   used on the Tor site to get to a particular web page.

20   Q.   What is shown here on Government Exhibit 325?

21   A.   What we are looking at here are some of these URLs or these

22   internet addresses that were found, I believe they were in the

23   bookmark section of the Tor browser, and they include the URLs

24   themselves as well as the title of the page that would then be

25   navigated to.

1   Q. Do you recognize any of these sites, Agent Spivack?

2   A. I do.

3   Q. What of these websites in the bookmarks area do you

4   recognize?

5   A. Well, two that pop out in particular are the last two.

6   Hard Candy and Magic Kingdom. Hard Candy was at the time used

7   as slang for child pornography by many. But it was also a site

8   you could go to which allowed a user access to other sites that

9   all contained, again, very egregious child pornography files.

10   Magic Kingdom was very similar in that it was a sort

11   of a directory or a stop one could go to, to search for a

12   variety of different child pornography, depending on the user's

13   interests.

14   Q. Let's turn to slide 33. Could you describe what is shown

15   here on Government Exhibit 581.

16   A. We are looking at a different PDF document. This one is

17   called "How to Practice Child Love."

18   Q. Where was this file in the data.bkp file?

19   A. This was the same file as the other. This was in the

20   folder called "new" in the data.bkp.

21   Q. Do you recognize this type of document in your experience?

22   A. Yes, I recognize this type of document, yes.

23   Q. Can you describe how you recognize it?

24   A. Yes, sir. So, this is another PDF, similar to the one

25   before, that had been fairly common back sort of a handful of

1   years ago. Not something we see as common today, but something

2   that would often be traded amongst users to help -- I suppose

3   the other users in finding children to engage in sexual acts.

4   In some cases they would describe things one can do to try and

5   lure a child or groom a child, things like that.

6   Q. So turning to slide 34. What is shown on the right side of

7   the screen?

8   A. This is an excerpt from one of the articles within this

9   PDF.

10   Q. In general terms, what does that excerpt describe?

11   A. It describes exactly what I was saying. It is a guide to

12   teach individuals of how to approach children, to be able to

13   practice sort of safe sexual contact with them, and to avoid

14   law enforcement.

15   Q. Turning to slide 35. Did you find anything else in this

16   "How to Practice Child Love" file that was relevant to your

17   investigation?

18   A. Yes, sir.

19   Q. What was that?

20   A. This PDF also contained references to Tor as did the other,

21   as well as references to encryption.

22   Q. Turning to slide 36 of the presentation. What is shown

23   here on Government Exhibit 492?

24   A. Well, what we are looking at is sort of in data form a

25   recently used document. What this shows us were files that had

1   been recently used or recently accessed on this virtual

2   machine.

3   Q.   Is this the entire file or are we looking at just a

4   snapshot?

5   A.   We are just looking at a snapshot.

6   Q.   Did you identify any child pornography in this recently

7   used file in the data.bkp container?

8   A.   Yes, sir.

9   Q.   Let's start with the red box. What is shown there?

10   A.   It is a video file titled "Great Show of 11 YO girl."

11   Q.   Did you watch that file as part of your investigation?

12   A.   Yes, sir.

13   Q.   What does it show?

14   A.   It depicts a female, approximately 11 years of age. She is

15   engaged in a variety of sexual acts to herself.

16   Q.   Let's turn to slide 37. Agent Spivack, did you identify

17   any other child pornography listed in the recentlyused.xbel

18   file in the data.bkp container?

19   A.   Yes, sir.

20   Q.   Approximately how many child pornography files were

21   accessed on April 19, 2016, in this virtual machine?

22   A.   There were approximately 16 files.

23   Q.   The accessed date and times on the right side of the table

24   here on the screen, where do they come from?

25   A.   They came from the metadata of the files themselves.

1   Q.   Did you review these files as part of your investigation?

2   A.   Yes, sir.

3   Q.   What in general terms do they show?

4   A.   Again, generally speaking, these are all consistent with

5   child pornography, the vast majority being quite explicit, very

6   young children engaged in sexual acts with adults.

7   Q.   Turning to slide 38. Approximately how many child

8   pornography files were accessed on April 20, 2016, through

9   April 22, 2016, in the data.bkp file?

10   A.   There are 18.

11   Q.   Were these also in the recentlyused.xbel file?

12   A.   Yes, they were.

13   Q.   Did you review these files?

14   A.   Yes, sir.

15   Q.   In general, what do they depict?

16   A.   Similarly, they consist of young children engaged in sexual

17   acts.

18   Q.   Sexual acts with whom, sir?

19   A.   With adults.

20   Q.   Turning to slide 39. Approximately how many child

21   pornography files were accessed on April 29, 2016, and

22   April 30, 2016?

23   A.   Approximately 13.

24   Q.   Were these also in the recentlyused.xbel file in the

25   data.bkp container?

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1   A. Yes, sir.

2   Q. Did you review these files?

3   A. Yes, sir.

4   Q. In general terms, what do they depict?

5   A. Again, apologies for restating some of the graphic stuff,

6   but it contained child pornography depicting young children

7   engaged in sexual acts, often times with adults.

8   Q. Last example here on slide 40. How many child pornography

9   files in the recentlyused.xbel file were shown to be accessed

10   on May 1st of 2016?

11   A. There were 11, sir.

12   Q. Did you review these files shown on the screen?

13   A. Yes, sir.

14   Q. What do they depict?

15   A. Young children, again just like the titles depict, the

16   files generally depicted the same thing. Young children

17   engaged in sexual acts with other children and adults.

18   Q. Let's turn to slide 41. I'd like to take a brief look at

19   just one of these examples, Agent Spivack.

20   Earlier, you mentioned that Jenny. Did you identify

21   any files labels as such during your review of the

22   recentlyused.xbel file?

23   A. Yes, sir.

24   Q. What file is shown on the screen here?

25   A. This is a video file, it is titled "Jenny 9 YO

1 Daughter-Full."

2 Q. Did you review this file?

3 A. Yes.

4 Q. What does it show?

5 A. It is a video, it is approximately 16 minutes in length,

6 and it is a bit of a compilation video of the child identified

7 as Jenny as I referenced earlier. Portions in the video, she

8 is bound at her hands, her wrists, at her ankles. There is an

9 adult male that engages her in sexual conduct as well as a dog

10 that was used as well.

11 Q. When was this accessed?

12 A. Approximately April 20, 2016.

13   MR. BRADLEY: So we will, your Honor, we will play an

14 example of that once the screen is adjusted, and it is.

15   THE COURT: You may proceed.

16   Can you make a record of what exhibit number this is.

17   MR. BRADLEY: Yes, your Honor. Your Honor, the record

18 should reflect that we are about to play an example of that

19 file. That's an approximately seven second long clip. It will

20 be muted. The file is Government Exhibit 1001-4.

21   THE COURT: You may proceed.

22   MR. BRADLEY: Ms. Collins, can you please play that

23 seven second clip when you are ready.

24   (Video played)

25 Q. Agent Spivack, just so the record is clear, could you

1   please describe what we just saw in that seven second clip.

2   A.   What was depicted in that seven second clip was the young

3   female identified as Jenny, she was bound with a yellow rope,

4   she had a black appeared to be a choke collar around her neck,

5   while an adult male appeared to be masturbating her as well as

6   inserting his penis into her mouth.

7   Q.   Approximately how long is that entire video file?

8   A.   A little bit over 16 minutes.

9   Q.   Did you review that entire file as part of your

10   investigation?

11   A.   I did.

12   Q.   In general terms, what is depicted in the rest, after that

13   file, outside of that clip we just watched.

14   A.   Sort of trying to not get as graphic I suppose. Just sort

15   of recapping what I mentioned before about this particular

16   video, again, it depicts this same child, in similar sexual

17   conduct positions as was viewed on the screen. The main

18   difference is at times a dog is introduced in which she engages

19   the dog in oral sex, is probably the main difference between

20   what the rest of the video depicts and what we've seen.

21   Q.   So let's move on, Agent Spivack. To turning to slide 43.

22   We talked about various folders in the data.bkp container.

23   Were there other sources of child pornography in that virtual

24   machine on the defendant's computer?

25   A.   Yes, sir.

1   Q.   What is shown in that red box there on Government Exhibit

2   603?

3   A.   This is another data.bkp file that was found within the

4   original data.bkp file.

5   Q.   Do you understand that file to be encrypted?

6   A.   Yes, sir.

7   Q.   Did you decrypt it yourself?

8   A.   I did not.

9   Q.   Did you review the contents of that file?

10   A.   I did.

11   Q.   What, if anything, were the results of that review?

12   A.   There were child pornography and child erotica files within

13   that folder, file.

14   Q.   Turning to slide 44 of your presentation. Approximately

15   how many child pornography files did you find in that inner

16   data.bkp container?

17   A.   Approximately 63 child pornography files.

18   Q.   The files that are listed on the screen, are they examples

19   of what you found?

20   A.   Yes, sir, they are.

21   Q.   And did you review these files as part of your

22   investigation?

23   A.   I did.

24   Q.   In general terms, what do they show?

25   A.   They all depict child pornography. Again, young children

1   between 2 and approximately 7 years of age engaged in sexual

2   conduct.

3   Q. Let's turn to slide 45. I'd like to take a step back.

4   We've spent a lot of time on the virtual machine. Were there

5   any other locations on the defendant's computer that contained

6   child pornography?

7   A. Yes, sir.

8   Q. What was that other location?

9   A. The other location was a file called "volume."

10   Q. Where was that located on defendant's computer?

11   A. That was located right in the root directory, so not within

12   any particular folder, like "downloads" or "documents," but it

13   was in the root directory of the actual drive.

14   Q. What is shown in the red box on the screen, Government

15   Exhibit 40?

16   A. What is shown on the screen is that file path, with a data

17   and data in TFS which is the operating system, and root which

18   is that again that top level directory. Underneath the root

19   there is a number of different folders and files, among them is

20   the file called "volume."

21   THE COURT: So just to be clear, this was on the same

22   desktop, the hardware that -- it was on the same hardware as

23   the other stuff that you've been testifying about?

24   THE WITNESS: Yes, sir, so the Mint.dvi file you see

25   on the screen. This was found on that same drive, but a

1   different string of folders as the "volume."

2   Q. Let's turn to slide 46 then. What is shown here on

3   Government Exhibit 614?

4   A. This is that root directory. That top level directory of

5   this drive.

6   Q. When you say the drive, from what computer is that drive?

7   A. This is from a drive that came from the desktop computer,

8   the home desktop computer of the defendant.

9   Q. Where is the volume container on this screen?

10   A. So the very bottom, highlighted in red, is this file called

11   "volume." That's the file that we're referencing.

12   Q. Approximately how big is that "volume" file compared to the

13   other file size that you can see on the screen?

14   A. It is quite massive. I believe it is over a terabyte. 1.6

15   terabytes maybe.

16   Q. What did you find on that volume container? Let's turn to

17   slide 47.

18   A. The volume container contained, as you see on the screen,

19   approximately 90 files depicting child pornography.

20   Q. In front of you, Agent Spivack, should be a thumb drive

21   labeled Government Exhibit 1002. Do you see that?

22   A. I do.

23   Q. What is contained on that thumb drive?

24   A. Contained on this thumb drive are two folders. One that

25   contains the child pornography found in the volume container.

1   The other contains child erotica that was found in the volume

2   container.

3   Q.   Approximately how many child erotica files did you find in

4   the volume container?

5   A.   Approximately 61.

6   Q.   What is shown here on Government Exhibit 600?

7   A.   What we are looking at now are some of these files that

8   were created in December of 2016 on this volume container. We

9   are looking at -- you see the red box is highlighted over the

10 created date. So we are looking at files that had this created

11 date of December 4, 2016.

12 Q.   Where are we in the volume container at this point?

13 A.   So, within the volume container, there were a number of

14 folders. One of those folders was called "pics." Within that

15 folder there were a number of folders, among them a folder that

16 started with it appears to be Russian lettering. And then you

17 can see it at sort of the top there is a couple of at signs,

18 but it ends with the address dot imgsrc.ru_files.

19 Q.   Before we do, approximately how many child pornography

20 files did you find in this volume container that were created

21 in December 2016?

22 A.   Approximately 90.

23 Q.   I'd like to just direct you to the second bullet on the

24 slide. Approximately how many child pornography files did you

25 identify that were created in December of 2016?

1   A.   Approximately 61.

2   Q.   What was that -- was that 90 file you mentioned referencing

3   anything else?

4   A.   The 90 child pornography files were found in the volume

5   container I believe. I'm sorry. I was totally confusing my

6   numbers.

7   The 90 is the number of child pornography files found

8   on the volume container as a whole. The 61 is the number found

9   with a date of December 2016.

10   THE COURT: I think earlier you had said there were 61

11   child erotica files in the volume container as well. Is that

12   correct or is it the same number?

13   THE WITNESS: No, that may be correct. I want to say

14   off the top of my head there was 100-something child erotica

15   files. I could be wrong on that.

16   I did say that, you're right, your Honor. I think I

17   was mistaken on the fact we are looking at specifically to

18   December 2016.

19   Q.   So let's talk a little bit about that subfolder you

20   identified and turn to slide 48. Looking at the second red box

21   on Government Exhibit 600. What is this?

22   A.   So this is the file path that we were discussing, that

23   "pics" folder followed by a string of characters, the at

24   symbols and ending in imgscr.ru_files.

25   Q.   Do you recognize that imgscr.ru abbreviation?

1   A.   Yes, sir.

2   Q.   What is that?

3   A.   It is a Russian website. We used to refer to it as image

4   source, even though there was an actual site called Image

5   Source. But it is essentially like a photo bucket. It was

6   quite popular back many years ago. That allowed users to post

7   photos in various album sets, and then share them with other

8   folks as well.

9   Q.   Have you encountered that Russian web address in your prior

10   experience investigating child exploitation cases?

11   A.   Yes, sir.

12   Q.   Did you form any opinions based on the presence of that

13   Russian web address in the subfolder?

14   A.   I did, sir.

15   Q.   What was that opinion?

16   A.   The -- the imgsrc website was very common for us in child

17   exploitation investigations, particularly in 2010, you know,

18   probably through the next 5, 10 years. So the presence of that

19   website in any of our investigations was a flag for us. It was

20   indicative that there may be child pornography present, given

21   our -- the history of that site. Though the site was not

22   specifically designed for child pornography, it was such

23   commonplace for us that it stood out to me.

24   Q.   Let's turn to slide 49. Agent Spivack, what are we about

25   to look at here in your presentation?

1   A.   We are about to look at another image depicting child

2   pornography.

3   Q.   Is this one of the files created in the volume container in

4   December of 2016?

5   A.   It is.

6   Q.   In general terms, before we look at it, what is depicted on

7   this file?

8   A.   I believe this is a file depicting a young girl posing in

9   a -- sort of a sexual nature exposing her genitalia.

10   MR. BRADLEY: Your Honor, we are just about to show

11   this last example. It is marked as Government Exhibit 1002-2

12   as an example from the volume container that Agent Spivack

13   described. We will display it to the jury in unredacted form

14   for approximately five seconds beginning now.

15   THE COURT: You may proceed.

16   MR. BRADLEY: For the record, I've just taken it down.

17   Your Honor, I will now put up a redacted version of

18   that, that can be displayed to the gallery, that is marked for

19   identification as 1002-2-R. We will again play that for

20   approximately five seconds on the screen.

21   THE COURT: You may proceed.

22   MR. BRADLEY: I've just taken it down.

23   Q.   Agent Spivack, I'd just like to discuss a couple of other

24   examples of child pornography files in the volume container.

25   What is shown here on slide 55?

1   A.   What's depicted here are three examples of other image

2   files that were found on the volume container that are

3   consistent with child pornography.

4   Q.   Safe to say you reviewed these files?

5   A.   Yes, sir.

6   Q.   Can you just describe your recollection of these files that

7   you reviewed.

8   A.   Sir, these files are all image files. I recall that the

9   first two depict the young female bent over exposing her

10   genitals in a provocative manner. The last photo listed here

11   depicts a young girl, sitting on -- she's fully nude, sitting

12   on something with her legs up exposing her genitals for the

13   camera.

14   MR. BRADLEY: No further questions, your Honor.

15   THE COURT: Cross-examination.

16   CROSS-EXAMINATION

17   BY MR. De CASTRO:

18   Q.   Good afternoon, Agent Spivack.

19   A.   Good afternoon, sir.

20   Q.   So, you testified that child pornography evidence was

21   recovered from two main places, right?

22   A.   Correct.

23   Q.   The Linux Mint VM and the volume container?

24   A.   That's correct.

25   Q.   With respect to the Linux Mint VM container, you observed

1   evidence of access of that container, correct?

2   A. Yes, sir.

3   Q. And a great deal of access, actually, right?

4   A. Correct.

5   Q. Would you agree with me that there was for a period of time

6   weekly, daily, hourly access of that folder?

7   A. I don't know, without having any of the access log in front

8   of me, I couldn't agree to that specifically. But I would

9   agree that there was access to that, to that machine. Yes,

10   sir.

11   Q. Would you agree frequent access?

12   A. Yes, sir, I would.

13   Q. In your experience investigating these types of cases,

14   that's not unusual for a possessor, in your experience, of

15   child pornography or collector, right?

16   A. I mean, no, it is certainly not unusual.

17   Q. It's actually, I'm sure in your experience, you find it

18   often where they're accessing the material a lot, correct?

19   A. Yes, sir.

20   Q. In fact, that's something you look for, right?

21   A. Not necessarily. No, sir.

22   Q. That's not one of the things you look for, to see if the

23   folders are accessed and how often?

24   A. Well, certainly, the folders being accessed. But the

25   frequency of a folder being accessed really does not have any

1   bearing on whether or not -- or doesn't really have any

2   evidentiary bearing for us, given different types of offenders

3   and the frequency of some does not equate to the frequency of

4   others.

5   Q. But it does matter if you see a download and then an access

6   versus just a download, right?

7   A. No, sir. There are numerous instances that I can cite

8   where downloads may occur and the files not appear to be

9   accessed for days or weeks later.

10 Q. And the fact is that you know they're accessed days and

11 weeks later because you look for it, right?

12 A. No, sir. I mean, I'm stating there are times where we can

13 identify the download of child pornography say through a

14 peer-to-peer program, but not necessarily even demonstrating

15 the file was accessed. It could be for a variety of reasons

16 such as moving a file from one drive to another, or a whole

17 slew of reasons.

18   But the downloading of the file is what's important,

19 because that means to us that the file was downloaded on that

20 device at that given date and time. And for us, the receipt of

21 child pornography, the downloading of it, is what is important

22 at that point.

23 Q. For you. But the law says it is the knowing receipt,

24 right?

25   MR. BRADLEY: Objection.

1   THE COURT: Sustained.

2   Q. You looked for quantity of images, right? Fair to say?

3   A. Yes.

4   Q. And often you find thousands of file, right?

5   A. Yes, sir.

6   Q. Organized in different folders?

7   A. At times, yes, sir.

8   Q. Often by the type or the kind of material?

9   A. No, not necessarily.

10   Q. But sometimes it is, I assume?

11   A. Sometimes.

12   Q. That's exactly what you saw in the Linux Mint VM, right?

13   A. I saw folders with child pornography, yes, sir.

14   Q. With descriptors like categorizing them, right?

15   A. Correct.

16   Q. And the last access you saw on the Linux Mint VM was

17   May 1st of 2016, correct?

18   A. I don't recall the last time that I accessed -- or that I

19   saw the access of the VM.

20   Q. But you did look at the access records, yes?

21   A. Not as thoroughly as maybe I would in another case. My

22   role in this case was not so much the -- that aspect of it,

23   given the complexities. I'm not a computer forensic scientist.

24   So, the intricacies of encryption and access logs and Linux

25   systems combined with Windows systems. My role was essentially

1   to catalog and assess the child pornography for being child

2   pornography, but not necessarily beyond that.

3   Q.   So the answer is you are just not sure?

4   A.   Correct.

5   Q.   Now, on the volume as opposed to Linux Mint VM, you

6   observed much fewer files than on the Linux Mint VM; fair to

7   say?

8   A.   Correct.

9   Q.   And those files on the volume container were not organized

10   in sort of user, created, descriptive folders like we are

11   talking about in the Linux Mint VM; fair?

12   A.   I don't see that necessarily as different. My

13   interpretation of the folder structures for both are

14   consistent, in that it appears to me that the files were

15   downloaded from the internet, Tor, and that either the RAR

16   files were unzipped and their native file structure was intact,

17   or particular files were downloaded and the files were intact.

18   Q.   Listen to my question closely. Because I really, I wasn't

19   sort of getting to your opinion on that. I want to see what

20   you see. Okay.

21   On the Linux Mint VM, did you see folders that seemed

22   to categorize the images?

23   A.   Yes.

24   Q.   On the volume container, did you see folders that seemed to

25   categorize the images?

1   A.   Yes.

2   Q.   In a similar way?

3   A.   Yes.   That imgscr.ru.

4   Q.   That's folders?   That sounds like it's one folder.

5   A.   Well, that is the folder that we found the vast majority of

6   the child pornography, and there was not the quantity as we've

7   already discussed.   There was not the quantity.   So there was

8   not really a comparison.   The one container --

9   Q.   There is no comparison --

10   THE COURT: Gentlemen, you can't speak at the same

11   time.   So let the witness finish his answer.

12   Go ahead, Agent.   Were you finished.

13   THE WITNESS: No.

14   A.   Sir, I was just trying to say that I don't think there

15   really could have been a comparison on the type of folder

16   structure from one to the other, because one had vastly more

17   files than the other.

18   Q.   So I'm not asking if there was a comparison in some type of

19   technical way.   I'm just asking you were there folders on the

20   Linux Mint VM categorizing the child pornography.

21   MR. BRADLEY: Objection.   Asked and answered.

22   THE COURT: Well, I'll allow it.

23   A.   I view the folder imgsrc.ru as a categorization.   If it is

24   singular, that is singular, but that is what I view it as.

25   Q.   My question is on the Linux Mint VM, which does not have

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1   the folder you are talking about, there was a categorization of

2   the child pornography files, correct?

3   A.   Yes.

4   Q.   And on the volume container, there were not similar

5   categorizations, except for the one you've described as the

6   Russian folder?

7   A.   Correct.

8   Q.   The behaviors on each Linux Mint VM versus volume container

9   appear to be different?

10   A.   They do.

11   Q.   Like maybe someone else had created the volume container

12   versus Linux Mint VM.

13   A.   I have no -- no, sir, not in my opinion. I have -- to me,

14   that does not necessarily mean that somebody else was

15   responsible.

16   Q.   Does not necessarily, but could?

17   A.   Right. I have no idea. I'm telling you it does not

18   equate. One does not equate to the other in my opinion of what

19   I was to review.

20   Q.   Does not equate in terms of you were there to make sure it

21   was connected to Mr. Schulte?

22   A.   What I'm saying is the -- I have no opinion as to whether

23   it was one person or 1,000 people. The child pornography was

24   the child pornography. I can't speculate or opine on any other

25   types of activity that happened on either the VM, the volume

1   container, or anything else.

2   Q. You are an expert, right, in this material?

3   A. In child pornography, yes, sir.

4   Q. You could opine because you testified that you also do

5   forensic examination as well, right?

6   A. Correct. But as I've said, sir, I did not do that type of

7   forensic examination in this case.

8   Q. But you've done it in many other cases, right?

9   A. Doing it in another case doesn't allow me to comment on the

10   data that I didn't see in this one.

11   Q. And that's a rule based on -- is that some court ruling?

12   MR. BRADLEY: Objection.

13   THE COURT: Sustained.

14   Q. So, I'll move on.

15   I'd like to turn to one of the slides in your

16   presentation.

17   If you don't mind, Ms. Collins, could you put up page

18   47 I believe.

19   Great. Can you see that on your screen, agent?

20   A. Yes, sir. Mine says 39.

21   THE COURT: I think this might be the earlier version

22   without the filler pages. Can we get the version that was

23   actually used and admitted into evidence.

24   And ladies and gentlemen, let me just explain, lest

25   you think anything significant is going on. I think in the

1   slide deck that you were shown during the agent's direct

2   examination, I think there was an earlier version and then

3   another version where pages were added in connection with the

4   images and video that you were shown. So, as a result, one has

5   just more pages, but substantively the information is the same.

6   But, that being said, let's use the same exact version, please.

7   There we go.

8   MR. De CASTRO: Great. Thank you. So for the record

9   it is page 37 of Government Exhibit --

10   THE COURT: 3201.

11   MR. De CASTRO: Thank you, Judge.

12   THE COURT: 2301.

13   MR. De CASTRO: Yes.

14   Q. So, and this page is an excerpt of what you're seeing in

15   the contents of the volume container, right?

16   A. Correct.

17   Q. And you've included sort of a file listing, that's what

18   that is, that's sort of a file listing as part of it, right?

19   A. That's correct.

20   Q. And that file listing has the names of some of the files,

21   right, on the left-hand side under the name column?

22   A. Correct.

23   Q. And the type of file, they all say "file," right?

24   A. They do.

25   Q. And then there's -- I guess that probably says "file type"

1   is the next one?

2   A.   Correct. Oh, I'm sorry where -- yes, like the extension of

3   it; yes, sir. I think it is file extension I think.

4   Q.   It says file dot dot dot, and you are saying file

5   extension, and that usually identifies for you whether it is a

6   photo or a video or something like that?

7   A.   That's correct.

8   Q.   And so, then, the next is the size of those individual

9   files, right?

10 A.   Correct.

11 Q.   And then you have the created, accessed, modified dates

12 there?

13 A.   That's correct.

14 Q.   And you highlighted in that red box the creation time for

15 these particular files or this one particular file, right?

16 A.   That's correct.

17 Q.   So you obtained, you didn't do the forensic examination, so

18 you obtained this from the forensic examiner files I assume;

19 yes?

20 A.   Yes, sir. So the drive that I had was processed in a

21 program, so the program essentially put it in this view for us.

22 Q.   So the program spit it out for you, but that wasn't you

23 doing that. It was provided to you so you could do your

24 analysis?

25 A.   Correct. That's correct.

1 Q. But, and forensic examiners usually try to convert time

2 stamps to what's called UTC, right?

3 A. I think that depends generally. They try to keep things

4 consistent for a case.

5 Q. When you received it, you converted it back to Eastern

6 Standard Time; is that right?

7 A. No, sir, I did not do any conversion of time at all with

8 this one.

9 Q. So this is exactly how you received it?

10 A. Yes, sir. So the drive that I received or the evidence

11 item that I received was processed in this forensic program.

12 It parses out the data, but I made no changes to how the time

13 zone was represented, I did not offset for UTC, I just left it

14 as default.

15   THE COURT: Can I interject. UTC is Coordinated

16 Universal Time; is that correct?

17   THE WITNESS: That's correct.

18   THE COURT: And that's equivalent to what used to be

19 known as Greenwich Mean Time; is that correct?

20   THE WITNESS: That is also correct; yes, sir.

21 Q. So, you're getting the data and you are just looking at the

22 files. Who provided this data to you? Which agent?

23 A. The case squad provided me this data. I don't have a name

24 of who have specifically.

25   MR. De CASTRO: One second, your Honor.

1   Q. On this file listing, the created time stamps show that all

2   the files, at least listed here, were downloaded -- looks like

3   within two second, right?

4   A. Yes, sir.

5   Q. The created and modified dates for all those files are all

6   off by or differ by two seconds, right?

7   A. That's correct.

8   Q. And so you suggest all these files were downloaded in or

9   about the same time as sort of one chunk?

10   A. Correct.

11   Q. No one could look at, select, and download this number of

12   files individually in two seconds, right?

13   A. I don't believe so, correct.

14   Q. This is only a portion, right, because there was more

15   files?

16   A. That's correct.

17   Q. I want to, if we could go back to page four of the

18   presentation. So do you remember this slide, slide four of

19   your presentation?

20   A. I do; yes, sir.

21   Q. I think you testified that it may have been an error that

22   this was over 500 gigabytes?

23   A. Yes, sir, I -- there are way too many numbers. I probably

24   should not have guessed because I'm terrible at math anyway,

25   and there are a lot of numbers there.

1   Q. If we do the comma, it is actually 50 gigabytes?

2   A. 53 gigabytes. I tacked on an extra zero at the end.

3   MR. De CASTRO: I have nothing further, thank you.

4   THE COURT: Did you say you have nothing further?

5   MR. De CASTRO: I did.

6   THE COURT: I somehow missed that.

7   MR. De CASTRO: No further questions.

8   THE COURT: Redirect?

9   MR. BRADLEY: No redirect, your Honor.

10   THE COURT: Thank you. Sorry. I somehow didn't hear

11   those magic words.

12   You may step down, Agent Spivack. And government,

13   please call your next witness.

14   MR. DENTON: The government calls Michael Berger.

15   (Witness excused)

16   MICHAEL R. BERGER,

17   called as a witness by the Government,

18   having been duly sworn, testified as follows:

19   DIRECT EXAMINATION

20   BY MR. DENTON:

21   Q. Good afternoon, Mr. Berger.

22   A. Good afternoon.

23   Q. Where do you work?

24   A. I work for the Federal Bureau of Investigation.

25   Q. What is your job with the FBI?

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1   A.   I'm a computer scientist currently assigned to the New York

2   field office.

3   Q.   How long have you been a computer scientist with the FBI?

4   A.   About 11 years.

5   Q.   Do you have any degrees relating to computer science?

6   A.   I do.

7   Q.   Tell us about your education in computer science.

8   A.   I have a bachelor's degree in computer science, a master's

9   degree in computer science, and a master's degree in computer

10   forensics.

11   Q.   In addition to your educational background, have you

12   received any professional training or certification related to

13   computer science and forensics?

14   A.   Yes, I have.

15   Q.   If you can describe some of your training and

16   certifications, please.

17   A.   I have taken numerous information security trainings, both

18   internal to the FBI and from external vendors. Many of those

19   have accompanying certification exams. Specifically related to

20   digital forensics, I have the GIAC certified forensic analyst

21   and certified forensic examiner.

22   Q.   Beyond receiving training yourself, have you also trained

23   or taught others in computer and digital forensics?

24   A.   I have.

25   Q.   Tell us about that experience, please.

1   A. So, I teach a graduate level course in digital forensics at

2   the Tandon School of Engineering at NYU.

3   Q. Have you also conducted trainings within the FBI?

4   A. I have.

5   Q. Explain a little bit about that experience, please.

6   A. I've conducted some internal trainings within the cyber

7   branch of the New York office, some to members of the cyber

8   branch, and some more informal trainings to members of my

9   squad.

10 Q. Turning back to your own work with the FBI, are you

11 assigned to a particular squad or unit?

12 A. I am.

13 Q. Where are you assigned?

14 A. I am assigned to squad CY1 on the cyber branch of the New

15 York office.

16 Q. Generally speaking, can you describe what your duties are

17 as a computer scientist assigned to CY1.

18 A. So CY1 investigates complex computer intrusions. My job as

19 a computer scientist is to provide subject matter expertise and

20 assist the special agents who are investigating computer

21 intrusions in order to provide additional technical analysis to

22 help them further their cases.

23 Q. In addition to CY1, are you assigned to any other

24 components within the FBI as well?

25 A. I am.

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1   Q. Where else are you also assigned Mr. Berger?

2   A. I am a member of the Cyber Action Team, also referred to as

3   CAT.

4   Q. What is the Cyber Action Team?

5   A. That is the FBI headquarters based incident response team.

6   It is charged with responding to very high priority or

7   sophisticated computer intrusions, both domestically and

8   internationally when the FBI receives requests for assistance.

9   Q. What is your role in particular with the Cyber Action Team?

10   A. I'm what's referred to as a CAT operator.

11   Q. What does that entail you doing?

12   A. It means I am a member of the team that follows an on-call

13   schedule usually a few times per year. And if while I'm on

14   call a request for deployment comes in, I deploy wherever that

15   request is coming from.

16   Q. Have you in fact deployed in response to high priority

17   incidents as part of the Cyber Action Team?

18   A. Yes, I have.

19   Q. Have you also participated in digital forensic

20   investigations with CY1 and other squads?

21   A. Yes, I have.

22   Q. As part of those investigations, have you conducted

23   specialized computer analysis?

24   A. That's correct.

25   Q. What kind of things would you characterize as the sort of

1   specialized computer analysis you've conducted?

2   A. So a few different areas. I've done disk forensics, which

3   is analyzing the contents of a hard drive; memory forensics,

4   which is analyzing, both collecting and analyzing contents of

5   volatile memory; I've reversed engineered malware; analyzed

6   logs from servers and firewalls. Things like that.

7   Q. Have you previously testified in court as an expert in

8   digital and computer forensics?

9   A. Yes, I have.

10   MR. DENTON: The government would offer Mr. Berger as

11   an expert in the digital and computer forensics.

12   THE COURT: Any objection?

13   MR. De CASTRO: No objection.

14   THE COURT: So received.

15   And ladies and gentlemen, the same instruction I gave

16   you earlier regarding experts applies here as well. You may

17   proceed.

18   BY MR. DENTON:

19   Q. Mr. Berger, I'd like to ask you to think back to 2017 if

20   you could. Did there come a time in that year when you became

21   involved in the investigation of Joshua Schulte?

22   A. Yes.

23   Q. Roughly when did you become involved in that investigation?

24   A. That would have been March of 2017.

25   Q. Generally speaking, what was your role in the

1   investigation?

2   A.   I was requested to assist with the analysis of electronic

3   media recovered from the defendant's apartment.

4   Q.   What types of digital evidence did you review as part of

5   that?

6   A.   Mostly disk images of both hard drives. I believe some

7   thumb drives as well.

8   Q.   What, if anything, notable did you find during your review

9   of that material?

10   A.   We found the presence of the use of encryption, as well as

11   beneath that encryption, child pornography.

12   Q.   Based on your forensic analysis, did you reach any

13   conclusions about who had access to that material?

14   A.   Yes.

15   Q.   What conclusions did you reach?

16   A.   That it was accessible by the defendant.

17   Q.   Did you look for evidence about whether anyone else had

18   access to that material?

19   A.   Yes.

20   Q.   Did you find any evidence of that?

21   A.   I did not.

22   Q.   What, if any, conclusions did you reach about whether

23   anyone other than the defendant had access to the material in

24   his desktop computer?

25   A.   That no one other than the defendant had access.

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1   Q. Mr. Berger, there should be a black binder up on the rail

2   there next to you. If I could ask you to take a look at that

3   for a moment, which should contain a copy of what's been marked

4   for identification as Government Exhibit 2302. Do you see

5   that?

6   A. Yes, I do.

7   Q. What is Government Exhibit 2302?

8   A. It is a presentation designed to aid in my testimony today.

9   Q. Will it help you explain some of your forensic methodology

10   and your conclusions?

11   A. Yes, it will.

12   Q. Are some of your conclusions based on exhibits that are

13   very lengthy or large?

14   A. Yes.

15   Q. What are some of the types of exhibits that are very large

16   that you relied on?

17   A. So there are exhibits such as virtual machines that are

18   very, very large in size; encrypted containers that are also

19   very large in size; as well as file listings that depict the

20   files within those types of files, those are extremely large as

21   well.

22   Q. Would it be difficult to display those files here in court?

23   A. Yes, it would.

24   Q. Does Government Exhibit 2302 accurately summarize and

25   excerpt relevant parts of those exhibits?

1   A.   It does.

2   MR. DENTON: The government offers Government Exhibit

3   2302.

4   MR. De CASTRO: No objection.

5   THE COURT: Admitted.

6   (Government's Exhibit 2302 received in evidence)

7   MR. DENTON: Ms. Collins, if we could put up the start

8   of Government Exhibit 2302, and, your Honor, if we could

9   publish that to the jury as well.

10   THE COURT: You may.   Just to be clear, this is

11 subject to the same instruction I gave you earlier with respect

12 to 2301.

13 Q.   Mr. Berger, is your presentation broken up into parts?

14 A.   Yes, it is.

15   MR. DENTON: If we could go to slide 2, Ms. Collins.

16 Q.   Over all, Mr. Berger, can you summarize what were your key

17 findings from your digital forensic analysis of the defendant's

18 computer.

19 A.   Sure.   In summary, there were user accounts for both the

20 desktop and Linux VM for a Josh user, and there was no evidence

21 anyone else other than the defendant used either system.

22   The child pornography was kept in two locations on the

23 system.   One was within what's referred to as the Linux Mint

24 virtual machine, and another is an encrypted container named

25 volume.

1   The collection of child pornography and those

2   container files they stood out as the largest files compared to

3   anything else on the system.

4   There were multiple layers of encryption that were

5   used to conceal the child pornography, and the passwords that

6   were used to decrypt that child pornography were the same

7   passwords the defendant used for things like his e-mail,

8   banking, and personal websites.

9   Some of the child pornography was stored in the same

10   location as some of the defendant's personal items, things like

11   financial records and legal documents. There also were

12   bookmarks to child pornography indicating websites, sites you

13   might access on the dark web.

14   And there is also evidence that the defendant opening

15   and viewing the child pornography, both within the virtual

16   machine as well as on the Windows desktop.

17   Q. If we could go to the next slide, Ms. Collins.

18   Mr. Berger, we are going to talk about this in more

19   detail, but you've referenced a couple different locations

20   within the defendant's computer. Using this diagram, can you

21   just explain how the defendant stored child pornography on his

22   home desktop.

23   A. Sure. So within the desktop computer, there was a Linux

24   Mint virtual machine. You can think of that as kind of a

25   computer within a computer.

1   Within that virtual machine, there was the home

2   directory for the user Josh. Within that home directory, there

3   was an encrypted container data.bkp. There was child

4   pornography present in that container, as well as a second or

5   inner data.bkp container that lived inside the first container,

6   where there was child pornography present in that second

7   container as well. Additionally, on the desktop computer,

8   there was an encrypted container named "volume" that also

9   contained child pornography.

10   Q. If we could go to the next slides.

11   First, Mr. Berger, I want to talk a little bit about

12   what you reviewed to reach some of those conclusions.

13   MR. DENTON: And your Honor, may I approach the

14   witness?

15   THE COURT: You may.

16   Q. Mr. Berger, I just put up next to you a computer that's in

17   evidence that's marked Government Exhibit 200.

18   And Ms. Collins, if we could go to the next slide.

19   Slide 5, please.

20   Mr. Berger, do you recognize the computer that's shown

21   in Government Exhibit 110 and 202 on the screen, and 200 in

22   front of you?

23   A. Yes.

24   Q. What is it?

25   A. That is the desktop computer that was found at the

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1 defendant's apartment.

2 Q. Did you review forensic artifacts from this computer?

3 A. I did.

4 Q. Is Government Exhibit 200 the kind of computer that someone

5 could go into Best Buy and purchase?

6 A. No.

7 Q. How is it different?

8 A. It's referred to as a custom built computer. Essentially,

9 each component was purchased separately, and whoever built the

10 computer would put those components together. So it's not like

11 a brand name computer you would buy from a retail store.

12 Q. What level of technical sophistication is necessary to

13 build a computer like Government Exhibit 200?

14 A. You need a higher level of technical complexity than the

15 average user.

16 Q. Was there an operating system installed on Government

17 Exhibit 200?

18 A. There was.

19 Q. I want to talk a little bit about how you conducted your

20 analysis.

21   Did you conduct your forensic analysis on the physical

22 computer that's in evidence as Government Exhibit 200?

23 A. I did not.

24 Q. What did you use for your analysis?

25 A. I used what's referred to as a forensic image.

1   Q. What is a forensic image?

2   A. So when a computer is obtained as evidence, it is very

3   important that when analyzing that evidence, we don't want to

4   modify anything. We want to preserve it and keep it kind of

5   unmodified.

6   So, when the forensic team will collect that evidence,

7   they will copy the contents of the hard drives into what's

8   called a forensic image. You can think of that as a single

9   file, almost like a zip file that would contain other files.

10   The forensic image has a complete bit for bit copy of

11   everything that was on the hard drive and it puts it into a

12   computer that, among other things, has some capabilities to

13   ensure that during our analysis process, the data is not

14   modified.

15   Q. At a very high level, describe how you would undertake the

16   analysis of a forensic image.

17   A. Once we have the forensic image, we could use any number of

18   different forensic tools that are capable of reading the data

19   that's on the forensic image, and giving us access to all of

20   the data that would have been on the hard drive in its

21   entirety.

22   Q. Are you familiar with the term "forensic artifact"?

23   A. I am.

24   Q. What does that refer to?

25   A. A forensic artifact generally refers to an individual item

1   that you would find in digital evidence that indicates either

2   something occurred or something did not occur.

3   Q.   When you conduct forensic analysis in a case like this, do

4   you draw conclusions from single artifacts taken in isolation?

5   A.   Generally, no.

6   Q.   Why not?

7   A.   Taking a single artifact can often result in looking at

8   something out of context. Sometimes digital forensics can be

9   referred to as trying to look at a jigsaw puzzle. You need to

10   have all the pieces together to look at the big picture and

11   determine what happened.

12   Q.   Turning back to that computer, Mr. Berger. Did the

13   defendant's desktop computer have hard drives in it?

14   A.   It did.

15   MR. DENTON: Ms. Collins, if we can go to the next

16   slide, please.

17   Q.   Tell us what sort of hard drives were in the defendant's

18   computer.

19   A.   There were multiple hard drives in the computer. There was

20   a single drive that was designated as the C drive or the

21   operating system drive. And there were three other drives that

22   were combined to form what's referred to as a RAID 5 array, and

23   this is what's referred to as the D drive.

24   Q.   Mr. Berger, are you able to see those hard drives on the

25   physical Government Exhibit 200 in front of you there?

1   A. Yes.

2   Q. If I could ask you to just turn that so the jury can see it

3   and point to what you were describing a moment ago?

4   THE COURT: Mr. Denton, if you can make a record of

5   what --

6   MR. DENTON: Mr. Berger has turned Government Exhibit

7   200 so that the left side, which is open, is facing the jury.

8   And is pointing to the series of hard drives installed towards

9   the front where the exhibit sticker is marked.

10   Q. Mr. Berger, you said that there was one hard drive that was

11   the operating system drive, and then a different set of hard

12   drives; is that right?

13   A. Yes.

14   Q. How were those other hard drives configured?

15   A. They were collectively combined in what's known as a RAID 5

16   array.

17   Q. What's a RAID 5 array?

18   A. A RAID array in general is a method of combining multiple

19   hard drives to form a larger volume of storage. It can be used

20   for either speed or redundancy or both sometimes.

21   The way a RAID 5 array works is that you need a

22   minimum of three hard drives that are joined together. The

23   benefit you get from a RAID 5 array is the data is stored in a

24   way that if any one physical drive fails, you don't lose any

25   data. The data as it's written to the drive is striped across

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1   all three drives in what's called a parity bit, which is a

2   mathematical calculation is formed, and that data is shared

3   across three drives. So if any one drive fails, you won't lose

4   the data, you simply remove that drive, replace it, the RAID

5   and that parity bit is recalculated, and you are back up to a

6   level where, again, any one of the drives can fail.

7   Q. What, if any, effect does that have on the protection of

8   the user's data on that RAID 5 array?

9   A. Significantly more protection than if you were storing data

10   on a single drive.

11   MR. DENTON: I think we are done with the computer.

12   May I approach the witness and take it back?

13   THE COURT: You may.

14   MR. DENTON: Ms. Collins, if we could go to slide 7,

15   please.

16   Q. Mr. Berger, what is shown here in what's in evidence as

17   Government Exhibit 217?

18   A. This is a photograph of the RAID configuration screen for

19   that desktop computer.

20   Q. Generally, what does this show?

21   A. This shows the specifics of how the RAID is configured.

22   You can see below there are two pieces of information. There

23   are RAID volumes and there are physical devices. The physical

24   devices refer to the three specific hard drives or the physical

25   drives that were just shown in the chassis. The RAID volume is

1   kind of the abstracted collection of those three drives

2   together.

3   So you can see the three physical drives of 931

4   gigabytes each combined for a volume of 1.8 terabytes. This is

5   what would be presented to the user in the operating system, a

6   single 1.8 terabyte drive they could store files on.

7   Q.   Why do three drives of 931 gigabytes combine to form a RAID

8   volume of 1.8 terabytes?

9   A.   Essentially the loss of space is the cost you pay for the

10   data protection. As I mentioned, there is a lot of overhead

11   with the calculation of that parity bit. That data has to

12   store somewhere, so you don't get access to the entirety of the

13   raw space across all three drives. Some of the space is used

14   by the RAID mechanism.

15   Q.   At the risk of asking a dumb question, what is the

16   relationship between a terabyte and gigabyte?

17   A.   A terabyte is 1,024 gigabytes.

18   Q.   If we can go to page 8.

19   Mr. Berger, are the hard drives shown in Government

20   Exhibits 212, 213, and 220 the same hard drives that were

21   listed in that RAID 5 controller you were just talking about?

22   A.   Yes, they are.

23   Q.   How do you know that?

24   A.   By looking at the serial numbers.

25   Q.   When you conduct your forensic review of the images of

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1   these hard drives, do you look at them separately?

2   A.   No, you do not.

3   Q.   Why not?

4   A.   As I mentioned, with a RAID array, the data is striped

5   across the three drives. If you were to take a forensic image

6   of any one drive and look at that, it would essentially look as

7   garbage, because you are looking at one-third of the data at

8   the lowest possible bit level. Because of that, you need to

9   look at the data essentially combined as that combined RAID

10   volume.

11   Q.   If you can go to the next page, Ms. Collins.

12   Mr. Berger, were you able to determine whether there

13   were any user accounts on the defendant's desktop computer?

14   A.   Yes.

15   Q.   How were you able to determine that?

16   A.   By using forensic software which parses parts of the

17   Windows registry, specifically the locations where user

18   information is stored.

19   Q.   How many active user accounts were there on the defendant's

20   desktop computer?

21   A.   One account.

22   Q.   What's the user name for that account?

23   A.   Josh.

24   Q.   Is that what's marked in red here from Government Exhibit

25   442?

1   A.   That's correct.

2   Q.   Talking about users, you said earlier you looked for

3   evidence that someone other than the defendant had used

4   Government Exhibit 200; is that right?

5   A.   Yes.

6   Q.   Tell us about some of what you did to look for that.

7   A.   Some of the things I looked for were the evidence of

8   additional users on the system. As again shown in Government

9   Exhibit 442, there are no other users, just the user Josh, and

10   some other built-in system accounts that aren't actually

11   enabled.

12   Additionally, I also looked for what's referred to as

13   remote access software. This would be software installed on

14   the system that would allow someone else to connect into that

15   system. I did not find any evidence of that.

16   Q.   What significance does a user account have for someone who

17   is using Windows on a computer like Government Exhibit 200?

18   A.   So the user account is how the user logs onto the system.

19   When the system is powered up, they would have to select their

20   user, enter their password, and then they are provided with

21   access to kind of their silo on the system. Things like the

22   desktop, your documents folder, your pictures folder. Those

23   are all contained within what's referred to as your user

24   profile. If another user was created, and used on the system,

25   their respective areas of those, so the desktop, documents

1   etc., those would all be siloed to their user profile.

2   Q. Did the Josh user account require a password to log on to

3   this computer?

4   A. Yes, it did.

5   Q. If we go to the next slide. I want to talk about some of

6   the files that you found on the defendant's desktop,

7   Mr. Berger.

8   If we can go to the next page.

9   Mr. Berger, were there any security measures in place

10   on that RAID 5 D drive that you were talking about a moment

11   ago?

12   A. There were.

13   Q. What did you find?

14   A. I found the use of BitLocker encryption.

15   Q. Tell us what that is?

16   A. BitLocker is an encryption suite designed by Microsoft

17   that's included in most versions of Windows. It makes it very

18   easy to enable encryption on your computer. The way it works

19   is a drive would be encrypted, and the encryption key is

20   derived from the password of the user account. So when the

21   user logs on to the system, their password generates a key that

22   decrypts the data on the drive.

23   All of this happens transparently to most users, so

24   you would look at it as you log on to the system, and you have

25   access to your file. However, if someone were to steal the

1   physical drive and try and look at the data, they would be met

2   with this encryption, and they would be unable to encrypt it

3   without the password that encrypted it.

4   Q.   Is that something that a user has to specifically enable?

5   A.   Yes.

6   Q.   Was the FBI able to decrypt the RAID 5 array in the

7   defendant's desktop?

8   A.   We were able to gain access to the decrypted portion of the

9   D drive, yes.

10   Q.   Of that 1.8 terabytes that was available on that array, how

11   much was actually used by content?

12   A.   A significant amount. Over about 1.2 -- 1.28 terabytes.

13   Q.   Let's take a look at what space was used on that D drive.

14   We can go to page 12, Ms. Collins. Thank you.

15   Mr. Berger, what does Government Exhibit 480 here

16   show?

17   A.   What we're looking at here is a file listing or a portion

18   of a file listing from the D drive.

19   Q.   A file listing of what?

20   A.   These are all the files that were contained on the D drive.

21   You can see the different attributes at the top there, things

22   like the file name, the full path to the file, the size, and

23   the different time stamps.

24   Q.   What would you use something like this for in your forensic

25   analysis?

1   A. File listing can be used for different purposes. For

2   instance, if you wanted to look for the most recently modified

3   files on a system, you could generate a file listing and sort

4   by the date and time modified. If you were looking for very

5   small or very large files, you could sort by the size column.

6   Q. Did you find anything notable in this file listing of the

7   defendant's D drive?

8   A. Yes.

9   Q. What did you find?

10   A. There were two significantly large files on the system.

11   Q. If you can go to the next slide, to page 13, please.

12   What are those two files Mr. Berger?

13   A. One is named volume, and one is named Linux Mint.vdi.

14   Q. I'd like to talk about these in the context of the drive as

15   a whole. If we go to the next page, please.

16   First of all, Mr. Berger, were you able to determine

17   what the actual size of the volume container and the Linux

18   Mint.vdi were?

19   A. Yes.

20   Q. How do you go from the size in bytes that's listed in the

21   excerpt from Government 480 to the numbers that are listed on

22   the slide here?

23   A. So the size that we are looking at is the number of bytes.

24   To convert through different units, you would take that number,

25   dividing by 1024 or 1,024 would go from bytes to kilobytes.

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1   Dividing by 1024 again would go from kilobytes to megabytes,

2   and dividing by 1024 again would yield gigabytes.

3   Q.   How many gigabytes was the volume container?

4   A.   The volume container was 150 gigabytes.

5   Q.   What about the Linux Mint virtual disk image?

6   A.   That was 100 gigabytes.

7   Q.   Do you have any conclusions about how those came to be such

8   nice round numbers?

9   A.   Yes.   The user would have entered the space when they were

10   setting up each of those containers.

11   Q.   How do the size of those files compare to the used space on

12   the D drive as a whole?

13   A.   They take up a significant portion of the space that's in

14   use on the D drive.

15   Q.   Is that something that would be noticeable to the user of

16   the computer?

17   A.   If the user was aware of the total used space on the drive,

18   and they -- this would set off some kind of flag as to indicate

19   a large portion of the space was being used.

20   Q.   Why is that?

21   A.   Again, they take up a significant portion of the space.

22   So, if all of a sudden a user noticed that a larger portion of

23   the drive was being used than they had thought, that would set

24   off some kind of alarm as to wondering where that space was

25   being used by.

1   Q. Does the size of a file affect how long it takes to do

2   things like copy it or open it or perform other actions on the

3   computer?

4   A. Yes, it does.

5   Q. Is that something that would be noticeable to a user as

6   well?

7   A. Yes.

8   Q. We can go to page 15, Ms. Collins.

9   Mr. Berger, how do those two files that you were just

10   talking about the relative sizes of correspond to what you were

11   describing using this image earlier.

12   A. So those two files again were both found on the D drive.

13   The Linux Mint.vdi file is the virtual disk image is the

14   virtual backed hard drive of the Linux Mint virtual machine.

15   And that volume file that we saw is the volume container

16   indicated on this picture.

17   Q. We can go to the next slide.

18   Now Mr. Berger, at various points we are going to talk

19   in some detail about both of those. I'd like to start by

20   asking you some questions about that Linux Mint virtual

21   machine, if that's okay?

22   A. Okay.

23   Q. Going to the next page, please.

24   We talked about it at a high level as sort of a

25   computer within a computer. But Mr. Berger, could you describe

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1   a little more specifically how a virtual machine works.

2   A. So a virtual machine, again, if you think about it as a

3   computer within a computer, it is a way of you sitting at your

4   desktop computer and utilizing an additional instance of an

5   operating system. You would have some kind of virtual machine

6   management software, from which you would be able to create a

7   new virtual machine. You would give the installed media, if

8   you wanted to install a particular operating system, you would

9   have to have the install disk or the programs and files that

10   make up that operating system. And you would go through the

11   install routine. It is similar to if you had built a custom

12   computer with a fresh clean hard drive, you would need to

13   install an operating system, you would need to have an install

14   disk for that as well and install the operating system on that

15   computer.

16   With virtual machines you can have multiple computers

17   or virtual machines within your computer for different

18   operating systems or different versions of different operating

19   systems for a variety of tasks.

20   MR. DENTON: One second, your Honor.

21   MR. De CASTRO: Could we have a very, very brief

22   sidebar.

23   THE COURT: Okay.

24   (Continued on next page)

25

1   (At the sidebar)

2   MR. De CASTRO: Judge, I apologize for the sidebar.

3   It was something I meant to talk to Mr. Denton about this

4   morning, but with everything happening, I just overlooked it.

5   On this slide deck, there is a portion of it where

6   they have Mr. Schulte's passwords, connecting his passwords

7   from his phone. And many of those or some of them are still

8   active. Meaning like his American Express and other things.

9   So I was asking the government if it's -- if it's possible we

10   can just turn off the public side of that. Because I do

11   understand why the government wants to show the user name and

12   password, but so that they don't have to see his American

13   Express password. It is still active.

14   THE COURT: Definitely something I preferred it should

15   have been raised sooner.

16   MR. De CASTRO: Yes.

17   THE COURT: What slide are we talking about? Are we

18   likely to get there today?

19   MR. DENTON: Yes, three or four slides away from that.

20   THE COURT: Give me one second.

21   Ladies and gentlemen, if you want to stretch, you're

22   welcome to do that.

23   Do you want to show me what we are talking about?

24   MR. DENTON: There is three iterations of this slide.

25   THE COURT: Slide 24.

1   MR. DENTON: Yes. There is three different passwords

2   and three different sets of them that come from.

3   THE COURT: What I would propose, again, I wish this

4   had been raised earlier, shut off the public screen. We will

5   make available to anyone who wants it a redacted version, just

6   redacting some number of the alphanumeric numbers. You guys

7   can agree what's appropriate, and that will be the public

8   version of the same exhibit. Let's mark it as 2302-R, whatever

9   the case may be. I'll explain it to the jury.

10   MR. De CASTRO: I appreciate it.

11   THE COURT: Thank you.

12   (Pause)

13   THE COURT: First of all, I thought we were done. But

14   second, just looking at it, those seem to be fairly simple

15   passwords. It's something I would assume the witness will

16   testify to. Others seem more complicated. Are we talking

17   about the entirety of it?

18   One is a word that begins with G and ends with N. It

19   is not clear to me how we keep that out of the record.

20   MR. De CASTRO: What we were talking about is just as

21   long as we are not identifying, you can see his banking

22   records, you don't have to say which bank. Like, his American

23   Express, you can say his banking records. And we were

24   discussing how the government could just lead him in this.

25   THE COURT: You think you guys can handle this?

1   MR. DENTON: I think so, your Honor. I think the

2   issue is the specific password is relevant to Mr. Berger. I

3   expect whether I ask him to or not, he'll say what the password

4   is. And I think from our perspective, what those passwords

5   were used for is fairly critical. That is something that the

6   jury will be shown.

7   I think I may, with the Court's indulgence, ask some

8   more leading questions about the types of accounts to try and

9   avoid naming them specifically, and they will be on the screen

10   for the jury to see.

11   I will say, I think given this is all from 2016 and

12   '17, it didn't can't really cross my mind this might still be

13   an issue. I can't seem to keep an account active for that

14   number of years. We'll try to work our way around it.

15   THE COURT: Thank you.

16   (Continued on next page)

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1   (In open court)

2   THE COURT: My apologies for the interruption, ladies

3   and gentlemen. We will pick up where we left off.

4   Go ahead, Mr. Denton.

5   MR. DENTON: Ms. Collins, if we can pick up on slide

6   17.

7   Q. Mr. Berger, are you familiar with something called a

8   Virtual Box?

9   A. Yes.

10   Q. What is Virtual Box?

11   A. It is an application that is used to create and run virtual

12   machines.

13   Q. What are some of the reasons why someone would want to run

14   a virtual machine?

15   A. It provides an additional layer of containerizing what you

16   are doing. So, one reason you might want to be -- you install

17   an operating system that is different than your primary

18   operating system to run certain software. So you might be

19   running Windows, and you want to run a particular application

20   or utility that only runs under Linux, you would install the

21   Linux operating system as a VM, and you could use that

22   particular application if you wanted to. And that would save

23   you from having to go set up a second physical computer, and

24   putting Linux on that.

25   Another reason might be if you wanted to have an

1   additional layer of protection. Again, the virtual machine can

2   be thought about as a container. So you could put things in

3   that container you wanted to keep together, and collectively

4   within one particular spot on your system.

5   Q. Looking at a spot on a system, if we could go to slide 18,

6   Ms. Collins.

7   Mr. Berger, what does this view here in Government

8   Exhibit 614 show?

9   A. This is a file listing of the D drive from the defendant's

10   computer.

11   Q. How does this view in Government Exhibit 614 compare to

12   what the user of the defendant's desktop would see using file

13   explorer or finder or something like that?

14   A. It is very similar. There is a bit more information

15   displayed in this particular screenshot. The indication of the

16   files and folders that start with a dollar sign indicate those

17   are system files. Those are part of the file system, and the

18   average user would not see those through normal day-to-day use

19   of the computer.

20   Q. What is highlighted by the two red boxes on this image?

21   A. One is a folder named "documents." The other is a file

22   named "volume."

23   Q. Is that documents folder linked to a particular user

24   profile that you were describing before?

25   A. That document's folder by itself is not, no.

1   Q. As I said earlier, I want to start with the Mint virtual

2   machine so if we go to the next slide.

3   Focusing on that entry, the Linux Mint.vdi,

4   Mr. Berger, can you explain what the entry under "full path"

5   indicates.

6   A. So the full path is the exact location where that file or

7   folder would exist on the hard drive. For the volume file, you

8   can see that it is directly in the root of the hard drive.

9   That's why in Exhibit 614, we can see that looking at the root

10   of the D drive, we see that volume file.

11   For the Linux Mint.vdi, the full path indicates it's a

12   few subfolders below the root. So we are able to see the

13   documents folder in Exhibit 614. Within that documents folder,

14   there is a folder named VMs, subfolder under that named Linux

15   Mint, within that folder is where the vdi file exists.

16   Q. So let's take that step by step and start with documents if

17   we can go to the next page, Ms. Collins. Thank you.

18   What does Government Exhibit 608 show?

19   A. Government Exhibit 608 shows a listing of the contents of

20   the documents folder.

21   Q. What are some of the folders in this documents folder?

22   A. There are several folders. Things like finance, health,

23   legal, school, so on and so forth.

24   Q. Have you reviewed a sample of the contents of those

25   folders?

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1   A.   I have.

2   Q.   Generally speaking, what kinds of things are in the

3   documents folder on the defendant's D drive?

4   A.   They're generally documents and files that seem to be of

5   personal interest to the defendant.

6   Q.   So then if we could go to the next slide, Ms. Collins.

7   Can you explain what we are looking at here in

8   Government Exhibit 615 and 612.

9   A.   So 615 shows us the contents of the VMs folder. We see

10   there a folder there named Linux Mint.

11   Exhibit 612 is a listing of the contents of the Linux

12   Mint folder.

13   Q.   What does Linux Mint refer to, Mr. Berger?

14   A.   So Linux is an operating system in the same way that

15   Windows or the Mac OS are operating systems. Linux is open

16   source. The core componentry of Linux is available for anyone

17   to use.

18   So what people will do is take that core componentry

19   also referred to as a Linux kernel, and package it in different

20   Linux distributions, sometimes referred to as flavors of Linux.

21   Linux Mint is one such flavor. These different distributions

22   are customized, they might have different applications or

23   particular graphical interfaces that make them different from

24   other distributions of Linux.

25   So in this case Linux Mint is referring to the Linux

1   Mint distribution.

2   Q.   In your experience, Mr. Berger, is there a difference

3   between the types of computer users that use Linux and people

4   that use Windows or Mac OS?

5   A.   Yes. Generally Linux are people who would be considered a

6   more sophisticated or technical user.

7   Q.   Why is that?

8   A.   Generally more complex to use. It is easier for things to

9   go wrong or harder to get things working. Sometimes there are

10   compatibility issues getting the operating system to work with

11   your hardware. Just from a general standpoint, it's a little

12   bit more challenging to use.

13   Q.   We talked about this a little bit earlier in connection

14   with the construction of Government Exhibit 200. Based on your

15   review of the defendant's home desktop computer overall, did

16   you reach any conclusions about his level of sophistication as

17   a computer user?

18   A.   Yes.

19   Q.   What did you reach?

20   A.   I reached that he had a significantly higher level of

21   technical complexity than the average user.

22   Q.   Looking at Government Exhibit 615 at the top of the page

23   here. The folder name is labeled VMs plural.

24   Were there any other virtual machines in this folder?

25   A.   There were not.

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1   Q.   Were there any other virtual machines anywhere in the

2   defendant's documents folder?

3   A.   There were not.

4   Q.   Looking down below at Government Exhibit 612, what files

5   are shown in that Linux Mint folder?

6   A.   There is a folder named "logs" and then there are three

7   files.   Linux Mint.vbox, Linux Mint.vbox-prev, and Linux

8   Mint.vdi.

9   Q.   If you could explain to us what those different files do.

10   A.   So the vbox file is essentially the settings file for the

11   virtual machine.   It is stored in what's referred to as XML

12   format, which is human readable text, and it consists of a

13   series of values that indicate how that virtual machine is set

14   up and configured.   The VDI or the virtual disk image is

15   essentially the hard drive for that virtual machine.   I would

16   store all the data, including the operating system, that would

17   be used to run the virtual machine.

18   Q.   Now, could anyone who is sitting at the defendant's desktop

19   and looking at this screen just click on the Mint virtual

20   machine and open it up?

21   A.   They could attempt to, but they would not get very far.

22   Q.   Go to the next slide, Ms. Collins.

23   Why wouldn't someone get very far, Mr. Berger?

24   A.   The VDI or the virtual disk image employed full disk

25   encryption within the virtual machine.   So when the user would

1   click in the Virtual Box to turn on the Linux Mint VM, the

2   first thing they would be met with would be a password prompt.

3   Q.   Were you able to determine the password used to decrypt the

4   VM found on the defendant's desktop?

5   A.   Yes, I was.

6   Q.   Is that what's shown on slide 22?

7   A.   Yes.

8   Q.   What is shown on Government Exhibit 235?

9   A.   That is a screenshot of what it would look like when you

10   turn on the virtual machine and after you have entered the

11   password, but before you would have hit "enter." The password

12   characters are represented by those black circles in the text

13   box.

14   Q.   How were you able to determine that this was the password

15   for the virtual machine?

16   A.   I obtained it through the passwords that were obtained from

17   the defendant's cell phone.

18   MR. DENTON: If we go to the next slide, Ms. Collins.

19   And if I could approach the witness one more time, your Honor.

20   THE COURT: You may.

21   Q.   Mr. Berger, I've just handed you what's already in evidence

22   as Government Exhibit 2000.

23   Do you recognize the cell phone that's shown in

24   Government Exhibit 2000 and the photograph 2002 and the

25   extraction report in evidence as Government Exhibit 2001?

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1   A. Yes, I do.

2   Q. Is this the cell phone that those passwords were extracted

3   from?

4   A. Yes, it is.

5   MR. DENTON: I think the next slide is the one that

6   has the issue we were discussing.

7   THE COURT: I'll shut off the public monitor.

8   Ladies and gentlemen, let me just explain for privacy

9   reasons, it turns out there is some information on the next

10   couple screens that for privacy reasons should have been

11   redacted. So I am going to turn off the public monitor. We

12   will make available to members of the public redacted copies of

13   this exhibit later. But, just so we don't need to interrupt

14   the flow of things and to make best use of your time, we will

15   proceed uninterrupted otherwise.

16   So you may proceed, Mr. Denton.

17   MR. DENTON: Thank you, your Honor. If we could go to

18   slide 24, Ms. Collins.

19   Q. Mr. Berger, are these accounts that used the same password

20   that you used to unlock the full disk encryption on the virtual

21   machine on the defendant's desktop?

22   A. That's correct.

23   Q. Without getting into the specific user names, do you

24   recognize the user names that are shown here?

25   A. Yes, I do.

1   Q.   Are they user names that you encountered during your

2   investigation of the defendant?

3   A.   Yes.

4   Q.   Who was user of the accounts that are depicted here?

5   A.   The defendant, Josh Schulte.

6   Q.   And did the defendant use the same password for an e-mail

7   account?

8   A.   Yes.

9   Q.   Did he also use it for credit card accounts?

10   A.   Yes.

11   Q.   And did he use it for school accounts?

12   A.   Yes.

13   Q.   Okay. Mr. Berger, so now you've got the password to

14   decrypt the file, does that let you open the Linux Mint virtual

15   machine?

16   A.   It allows you to power it on.

17   MR. DENTON: If we could go to the next slide,

18   Ms. Collins. And I think we're all set, Ms. Smallman. Thank

19   you.

20   THE COURT: Just for the record, I think I will

21   designate the redacted version, which will be prepared later,

22   as 2302-R. It will be identical except for those redactions.

23   MR. DENTON: Thank you, your Honor.

24   Q.   Mr. Berger, what is shown in Government Exhibit 236?

25   A.   So once the virtual machine powered on, you would be

1   presented with the log-on screen where you would log on as a

2   specific user.

3   Q. What did you need to log on to that virtual machine as a

4   specific user?

5   A. You needed the password for that particular account.

6   Q. Were you able to determine how many user accounts there

7   were for that virtual machine?

8   A. Yes, I was.

9   Q. Go to the next page, please, Ms. Collins.

10   What is shown here in Government Exhibit 493,

11   Mr. Berger?

12   A. This is what's referred to on your Linux as the shadow

13   file. It is where Linux actually stores the encrypted

14   passwords for the users on the system.

15   Q. We've got two entries here that are a lot longer than the

16   others. First of all, which two entries are those?

17   A. Those would be for the users root and Josh.

18   Q. What does the user root mean in Linux?

19   A. In the Linux world, root is the super user or the

20   administrator. Having root access on a Linux system

21   essentially means you have privileges to do whatever you would

22   like.

23   Q. What's the other account that's much longer?

24   A. That would be the account Josh.

25   Q. What are all of these other entries in between?

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1   A.   Those are system accounts that are essentially there for

2   different background services that run within the Linux system.

3   Q.   Is the Josh account a system account?

4   A.   It is not.

5   Q.   What kind of account is it?

6   A.   It is a user account.

7   Q.   What, if anything, are you able to determine from the fact

8   that the root account and the Josh account have these much

9   longer entries in the shadow file?

10   A.   That they had valid passwords set for them.

11   Q.   Were you able to determine what the passwords were for the

12   root and Josh accounts?

13   A.   Yes, I was.

14   Q.   If we go to the next page, please, Ms. Collins.

15   What was that password?

16   A.   It was the same password, the word "Gohan." G-O-H-A-N.

17   Q.   How were you able to determine that that was the password

18   for these two accounts?

19   A.   Again, that was one of the passwords that was contained

20   within the collection of passwords from the defendant's cell

21   phone.

22   Q.   Did you draw any conclusions from the fact that the root

23   account and the Josh user account had the same password?

24   A.   Yes.

25   Q.   What conclusions did you draw from that?

1 A.   That the same person set the password on both accounts.

2   MR. DENTON: If we go to -- actually, I apologize,

3 your Honor. We've got another password slide.

4   THE COURT: All right. Ms. Smallman. Thank you.

5   Am I right this is the last one that's an issue on

6 this front?

7   MR. DENTON: There is one more, your Honor, that we

8 will not get to for quite a while.

9   THE COURT: Okay.

10   MR. DENTON: If we can go to the next page,

11 Ms. Collins. Thank you.

12 Q.   Again, Mr. Berger, where did these password entries come

13 from?

14 A.   They came from the defendant's cell phone.

15 Q.   Do you recognize the user accounts that are shown here?

16 A.   Yes.

17 Q.   And in particular, do you see the user account for the

18 third entry in both the top and bottom lines here?

19 A.   Yes, I do.

20 Q.   Is that an account you recognize from this investigation?

21 A.   Yes, it is.

22 Q.   Who is the user of that account?

23 A.   The defendant, Josh Schulte.

24 Q.   And again, did the defendant use this password for ride

25 sharing services?

1   A.   Yes.

2   Q.   Did he use it for entertainment services?

3   A.   Yes.

4   Q.   Did he use it for delivery services?

5   A.   Yes.

6   Q.   With respect to both this password and the previous one,

7   Mr. Berger, are these just examples that were shown here on the

8   screen?

9   A.   Yes.

10   Q.   Were those passwords also used for other personal accounts

11   of the defendant?

12   A.   Yes, they were.

13   Q.   Were there many or just a few?

14   A.   A significant amount.

15   MR. DENTON: We can go to the next page, Ms. Collins.

16   THE COURT: We can turn the screen on.

17   MR. DENTON: Thank you, your Honor.

18   Q.   Mr. Berger, coming back to this view here. How does the

19   shadow file go from that short password that you were just

20   showing us from the defendant's phone to this long string of

21   letters and numbers here?

22   A.   So the shadow file stores a few different pieces of

23   information for each user's password. The entirety of the

24   password field is actually delineated between the two colons,

25   so you can see with the root user, there is root colon, and

1   then all the way towards the end of the screen, after ID slash,

2   there is another colon. That entire string of information

3   collectively generates the user -- collectively stores the

4   password.

5   Within that field, there are additional subfields that

6   are delineated by dollar signs. The first field that's six

7   indicates the actual algorithm that's used to hash or encrypt

8   the password. Next field that starts with AS, that goes to

9   that next dollar sign is what's referred to as the password

10   salt. And then the next field that's that starts with QUF is

11   the encrypted password.

12   The salt is a randomly generated sequence of

13   characters that is combined with the user's password to encrypt

14   it. That prevents a known collection of encrypted passwords

15   for a particular encryption algorithm.

16   Q. So even though these two accounts have the same password,

17   why is the entry in the shadow file for these two accounts

18   different?

19   A.   It is different because the salt is randomly generated for

20   each password. So if you look here, for both the root and the

21   Josh accounts, the salt value where for root it starts with

22   8S7, for the Josh account it starts with SQF. So since those

23   salts are different, even storing the same password will result

24   in a different password hash, which is the much longer string

25   of characters we see on the screen.

1   Q.   Turn to page 30, please, Ms. Collins.

2   Mr. Berger, so let's come back to this screen. You've

3   got the user name Josh and the password Gohan we were just

4   talking about.

5   What happens here?

6   A.   So at this screen you would enter the password for the Josh

7   account, and then hit enter and click okay. If you enter the

8   correct password, it would log you on to the desktop for the

9   Josh account.

10   Q.   So if we could go then to the next page, Ms. Collins.

11   What is shown here in Government Exhibit 237?

12   A.   This is the desktop for the Josh user account.

13   Q.   Mr. Berger, did you make these screenshots that we've been

14   looking at just now?

15   A.   I did.

16   Q.   How?

17   A.   So, I mentioned earlier how we have the forensic images of

18   the drives. From the forensic image I was able to extract or

19   copy out a copy of the virtual machine. I was then able to

20   load that copy of the virtual machine into Virtual Box that I

21   had to install on my analysis workstation. And I was able to

22   power up the virtual machine, essentially boot it, and get

23   access to it in the same way that you would have gotten access

24   to it on the original desktop.

25   Q.   Mr. Berger, I'd like to ask you about these icons that are

1   here on the defendant's desktop in the virtual machine. And I

2   apologize, we are going to go a little bit out of order.

3   If we can to the next slide, Ms. Collins. I'd like to

4   start with the third entry from the top that's labeled Tor

5   browser.

6   Do you see that, Mr. Berger?

7   A.   Yes, I do.

8   Q.   Go to the next page, Ms. Collins.

9   Briefly, Mr. Berger, what is Tor?

10   A.   Tor is a system for anonymous web browsing. It is

11   comprised of many different people that run Tor software across

12   the world. If you connect into the Tor network, via the Tor

13   browser, your connection to the Tor network is encrypted. The

14   data that you send to the Tor network is then routed through a

15   series of nodes on the Tor network, eventually exiting the Tor

16   network, and going back on to the regular internet to the

17   intended destination.

18   One of the things that makes Tor unique is every hop

19   on the network encryption is removed and then re-added, making

20   it hard for any one particular node to know the entire story of

21   where the data came from, where the data is going to, and what

22   is the content of the data.

23   Q.   What is the Tor browser in particular?

24   A.   The Tor browser is a modified version of a Firefox web

25   browser that allows you to easily connect to the Tor network.

1   Q. Can you connect to the Tor network without using a Tor

2   browser?

3   A. It's possible, yes.

4   Q. Are there certain sites that can only be accessed using a

5   Tor browser?

6   A. Yes, there are certain sites that are only available using

7   the Tor network.

8   Q. Is there a lay person's term for those websites?

9   A. It is generally referred to as the dark web.

10   Q. Can a user bookmark web sites in the Tor browser like in a

11   normal web browser?

12   A. Yes, they can.

13   Q. Does that include the ability to bookmark dark websites?

14   A. Yes, it does.

15   Q. Did you recover bookmarks from the Tor browser on the

16   defendant's desktop?

17   A. I did.

18   Q. If we go to the next slide, please, Ms. Collins. Let's

19   take a look at them.

20   First, Mr. Berger, I want to start with this box

21   that's separated out at the top here that starts Josh

22   decrypted. Can you explain what is shown in that box.

23   A. So this is showing the full path to the file of which the

24   content we're looking at in Exhibit 325, one of the

25   characteristics of the virtual machine was that the Josh

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1   account also had an additional layer of encryption within it.

2   It was essentially the home folder for the Josh account was

3   encrypted. So that even getting past that first layer of full

4   encryption for the virtual machine, there was an additional

5   layer for the home directory that was linked to the user's

6   password, and would decrypt when they logged on to the desktop.

7   It made it very complicated to access the content of

8   the home directory in a decrypted state in a forensically sound

9   manner.

10   What we are looking at here is the container, in this

11   case, a tar.gz file that we used to collect the decrypted

12   contents of the home directory. Within there, there is the

13   ecryptfs folder. Ecryptfs is the encrypted file system

14   mechanism of how the home directory was encrypted, and from

15   there we are essentially looking at the root of the Josh home

16   directory starting with the folder named period Tor dash

17   browser dash EN.

18   Q. When you say the home directory was encrypted, is that

19   something a user had to enable?

20   A. Yes.

21   Q. Which user?

22   A. The user Josh.

23   Q. The bookmarks that we're looking at here, were those

24   bookmarks unique to a particular user within the Linux Mint VM?

25   A. Yes, they were.

1   Q.   Which user?

2   A.   The user Josh.

3   Q.   Generally speaking, what kinds of websites did the user

4   Josh bookmark in the Tor browser?

5   A.   Several sites that were indicative of child pornography.

6   Q.   I want to talk about a couple of examples, if we could go

7   to the next page, Ms. Collins.

8   You see here in the red boxes these websites that

9   include the term dot onion. Do you see that?

10   A.   Yes, I do.

11   Q.   Do you recognize that format?

12   A.   Yes, I do.

13   Q.   What is that?

14   A.   A dot onion is what I mentioned -- I believe I mentioned a

15   Tor hidden service. That is a website that you can only get to

16   using the Tor network. You cannot access it just using a

17   traditional web browser.

18   Q.   Is that what you were referring to earlier as the dark web?

19   A.   Yes.

20   Q.   Just looking quickly two lines above that the top red box.

21   Do you see an entry that reads anonfiles.ru?

22   A.   Yes, I do.

23   Q.   Is that also a Tor hidden service?

24   A.   It is not.

25   Q.   Is that still something that could be accessed through the

1   Tor browser?

2   A.   Yes, it is.

3   Q.   I want to focus on just the dot onion sites for a moment.

4   If we could go to the next page, Ms. Collins.

5   In general, Mr. Berger, what were the titles of the

6   dark websites that the defendant bookmarked indicative of?

7   A.   Again, they were indicative of child pornography.

8   Q.   You said that these were bookmarks that were stored in the

9   Josh user's home directory; is that right?

10   A.   That's correct.

11   Q.   I want to talk about that for a moment. If we could go to

12   the next page, Ms. Collins, and go back to the desktop.

13   Do you see the icon that's circled in red that says

14   "home"?

15   A.   I do.

16   Q.   What is that?

17   A.   That is a folder representing the Josh user accounts home

18   directory.

19   Q.   You were talking a moment ago about the encryption that was

20   on that home directory. Could any user access that home

21   directory?

22   A.   They could not.

23   Q.   Why not?

24   A.   Because it was encrypted.

25   Q.   What did you need to access that home directory?

1   A.   You needed the Josh account password.

2   Q.   Was that that same password from the defendant's phone that

3   we were talking about a moment ago?

4   A.   Yes.

5   Q.   Let's take a look inside that home directory. If we could

6   go to page 38, Ms. Collins.

7   What is shown here, Mr. Berger, in Government Exhibit

8   476?

9   A.   This is a file listing of the contents of the Josh home

10   directory.

11   Q.   How is that file listing sorted?

12   A.   It appears to be sorted by size descending, starting with

13   the largest file at the top.

14   Q.   During your forensic analysis, did anything stand out to

15   you about the files in the Josh home directory?

16   A.   Yes.

17   Q.   What?

18   A.   The first file there at the top named data.bkp.

19   Q.   What stood out about it?

20   A.   Its size.

21   Q.   What about its size, Mr. Berger?

22   A.   It was significantly larger than any other file on the

23   system.

24   Q.   Let's talk about that. If we could go to the next page,

25   Ms. Collins.

1   Mr. Berger, again, let's assume that the user was

2   sitting at the defendant's desktop, logged in, through all the

3   steps you had described to get to that desktop screen. Can a

4   user then just click on this data.bkp file and open it?

5   A. They could not.

6   Q. Why not?

7   A. It turns out this file is what is known as an encrypted

8   VeraCrypt container.

9   Q. How were you able to determine that the data.bkp file was

10   encrypted when you were conducting your forensic analysis?

11   A. The first indication was its size, combined with the large

12   amount of what appeared to be random binary data which

13   comprised the file. We then attempted to use the VeraCrypt

14   application as it was pre-installed within virtual machine, and

15   the icon was on the desktop.

16   Q. We can go to the next page, Ms. Collins.

17   Is the program used to encrypt data.bkp reflected

18   here?

19   A. Yes, it is. It is right there in the red circle named

20   VeraCrypt.

21   Q. If we could go to page 41, please, Ms. Collins.

22   Generally speaking, Mr. Berger, what is VeraCrypt?

23   A. VeraCrypt is an encryption application that allows you to

24   create encrypted containers. You can encrypt an entire hard

25   drive or you can create an encrypted container. You can think

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1   of an encrypted container as a compound file similar to a zip

2   file. It is a single file that when accessed through the right

3   software, you can put additional files and folders in that

4   container.

5   When you unmount the container, it is back to just

6   being a single encrypted file on your system.

7   Q.   And here on the slide it says "on-the-fly encryption."

8   What does on-the-fly encryption refer to?

9   A.   On-the-fly encryption denotes you don't have to fully

10   decrypt and copy out of the contents of the container in order

11   to access it. When you mount the encrypted container, the

12   software will constantly be running in the background and

13   essentially doing just in time. It will be showing you what

14   you need. If you go into a particular folder of the container,

15   in the background it will decrypt the contents of that folder,

16   and be able to show it to you. It is going to be completely

17   transparent to the user when you are doing this.

18   Q.   Did you use the VeraCrypt program on the Linux Mint virtual

19   machine to open the data.bkp container?

20   A.   I did.

21   Q.   If we go to the next slide, Ms. Collins.

22   Mr. Berger, I am going to ask you to walk us through

23   how you opened data.bkp using VeraCrypt.

24   A.   So when you open the VeraCrypt application, you are

25   presented with the screen shown here. You would select the

1   file that you want to decrypt, so as you can see here, I've

2   selected the file, the data.bkp, which is located in the Josh

3   home directory. After you do that, you would click "mount,"

4   and the program would then prompt you for the password for the

5   container.

6   Q.   You can go to the next slide, Ms. Collins.

7   Is that a password that's unique to that particular

8   file?

9   A.   The particular password for this was not unique. We have

10   seen it before. The password is unique to that file in that it

11   generates the key that's used for that file.

12   Q.   How is the password for a VeraCrypt container set?

13   A.   It's set by the user when they create the container.

14   Q.   Were you able to determine what the password for data.bkp

15   was?

16   A.   Yes.

17   Q.   Go to the next slide, Ms. Collins.

18   What was the password for the data.bkp encrypted

19   container?

20   A.   It was a password that we have seen before. It's the

21   gohan9740phi$ password.

22   Q.   Was that the same password that was used at the first step

23   of opening the Linux Mint virtual machine?

24   A.   Yes.

25   Q.   Was that also the same password that we saw used for some

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1   of the defendant's personal accounts?

2   A.   That's correct.

3   Q.   What, if any, conclusions did you draw from the fact that

4   this file had that same password that we've seen before?

5   A.   That this file was created by the same person who created

6   the encryption on the virtual machine.

7   Q.   Did you draw any conclusions about who that person was?

8   A.   Yes.

9   Q.   Who?

10   A.   The defendant.

11   Q.   So, turning back to Government Exhibit 239 here. Once you

12   type in this password in the VeraCrypt application, what

13   happens next?

14   A.   The system will attempt to mount the container as a volume

15   under the Linux virtual machine.

16   Q.   You've used this term "mount." What does that mean,

17   Mr. Berger?

18   A.   Mounting is a term used in the computing world that

19   essentially translates another device, might be a volume on a

20   network, it might be a volume that is a file, and essentially

21   gaining access to its content.

22   Q.   So, if we could go to the next page, please, Ms. Collins.

23   What is shown in this screenshot, Mr. Berger?

24   A.   This is a prompt by the system informing you that you need

25   to enter your password or an administrator password. Linux

1 requires that you have certain privileges in order to do

2 certain what it refers to as administrative tasks. In this

3 case mounting a volume to the system would be something that

4 Linux requires those administrative privileges for.

5 Q. Were you able to determine the password you needed to enter

6 here?

7 A. Yes.

8 Q. If we go to the next slide. Which password was that?

9 A. It is the same password for both the root and Josh

10 accounts, Gohan.

11 Q. After you go through all these steps in VeraCrypt,

12 Mr. Berger, what happens next?

13 A. After you go through all these steps, the software will

14 attempt to actually decrypt the container, and if it is

15 successful, it will give you access to that container in its

16 mounted state.

17 Q. Were you able to access that container in its mounted state

18 following these steps that you've shown us just here?

19 A. I was.

20 Q. If we go to page 47, please, Ms. Collins.

21   What is shown here in Government Exhibit 603,

22 Mr. Berger?

23 A. This is a file listing of the contents of data.bkp.

24 Q. I'll ask you to tell us about some of the folder names here

25 if you can go to the next slide, please.

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1   What are some of the folders in that encrypted

2   container decrypted with those passwords that we've talked

3   about?

4   A.   They include folders named downloads, kids, old, other,

5   young, and NN.

6   Q.   Do you see the entry at the bottom there for "new"?

7   A.   I do.

8   Q.   Let's take a look at that as an example. Ms. Collins, we

9   can go to the next slide, please.

10   What are we looking at here in Government Exhibit 49,

11   Mr. Berger?

12   A.   This is a file listing of the contents of the "new" folder.

13   Q.   How does the view that's shown here in Government Exhibit

14   604 compare to what someone sitting at the defendant's desk

15   would see?

16   A.   It is similar, but there a few additional pieces of

17   information that are shown here.

18   Q.   I want to ask you about some of the files that are shown

19   here and blow some of them up. Could we go to the next slide,

20   Ms. Collins.

21   So, first of all, Mr. Berger, starting with the column

22   all the way on the right of the area that's blown up here from

23   Government Exhibit 604. What types of files are these?

24   A.   These appear to be mostly video files.

25   Q.   When you were conducting your forensic review of the

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1   defendant's desktop, did you come across some of these files?

2   A.   Yes.

3   Q.   What did you do when you came across them?

4   A.   I notified one of the special agents working on the

5   investigation.

6   Q.   Why did you do that?

7   A.   That's protocol when dealing with the discovery of child

8   pornography and how it's treated. Essentially, it is treated

9   as contraband, so just the mere possession of it is a crime.

10   So, when handling that, within the FBI investigation, you need

11   to take additional precautions.

12   Q.   Did you in fact take those precautions?

13   A.   Yes.

14   Q.   Next, Mr. Berger, I'd like to ask you about what's above

15   those individual file names.

16   If we can go to the next page, Ms. Collins. Slide 51.

17   Thank you.

18   What types of files are these, Mr. Berger?

19   A.   These appear to be RAR files or R-A-R.

20   Q.   What kinds of files are RAR files?

21   A.   It is what is known as a compound file, similar to a zip

22   file. It's basically a file that you can put other files or

23   folders of files into and store them in a single file.

24   Q.   What about the file names here, how do the file name for

25   these RAR files compare to the file names for the videos that

1   we were just looking at?

2   A.   These file names do not appear to be descriptive. They are

3   just sequences of letters and numbers.

4   Q.   What, if anything, did that indicate to you?

5   A.   It indicated that it's possible they came from another

6   source. It's possible they could have been downloaded.

7   Q.   Let's take a look at another folder on that point,

8   Mr. Berger. If we can look at the next slide, Ms. Collins.

9   Did you review the contents of a folder labeled

10 "downloads" within that encrypted container?

11 A.   I did.

12 Q.   First of all, what, if any, conclusions did you draw from

13 the presence of a folder named downloads?

14 A.   That most likely the content of the downloads directory was

15 downloaded from the internet.

16 Q.   I want to use this as an example to talk a little bit about

17 the difference between what a user would see and how some of

18 your forensic analysis would work. If we could go to the next

19 page, Ms. Collins.

20   Mr. Berger, do you see a folder here marked in a red

21 box labeled "11 year old"?

22 A.   I do.

23 Q.   Did you also identify that folder in the forensic file

24 listing that you generated that we were looking at earlier?

25 A.   I did.

1   Q.   Let's take a look at that. If we go to the next page,

2   Ms. Collins.

3   Mr. Berger, what are we looking at here?

4   A.   So again, this is a file listing of the content of the

5   downloads directory within the data.bkp container.

6   Q.   How does this view differ from the view that we were just

7   looking at in Government Exhibit 604?

8   I'm sorry. 605.

9   A.   Just that the way that the information is displayed to the

10   user, this is doing a listing by directory, so going through

11   each directory, and as it finds the files, it is showing you

12   the content of those folders. As opposed to the view the user

13   would see, which would be a collection of folders and they have

14   to manually go into each folder to view the content.

15   Q.   What is shown here in Government Exhibit 481 below the

16   entry for "downloads/11 years old" that's blown up?

17   A.   We are looking at the content of the "11 year old"

18   directory.

19   Q.   And what kind of content is in that directory?

20   A.   They appear to be JPG files or image files.

21   Q.   Go to slide 55, Ms. Collins.

22   Within than encrypt container data.bkp, Mr. Berger,

23   were there any other encrypted folders inside it?

24   A.   Yes.

25   Q.   What are we looking at here in Government Exhibit 481?

1   A. We're looking at the red highlighted section indicating an

2   additional file named data.bkp.

3   Q. And even though that has the same name, is that a different

4   file than the one we've been talking about?

5   A. Yes, it is.

6   Q. Were you able to determine the password for that file?

7   A. Yes, I was.

8   Q. What was the password for it?

9   A. It was the same password. The one that's indicated here.

10   Gohan9740phi$.

11   Q. We are not going to go in as much detail, but generally

12   speaking, what did that inner data.bkp encrypted container

13   contain?

14   A. It also contained media files with names indicative of

15   child pornography.

16   Q. Did you have to do anything in particular to recover the

17   child pornography from that inner data.bkp folder?

18   A. Yes.

19   Q. What did you have to do special for that?

20   A. That involved the use of file carving.

21   Q. What is file carving, Mr. Berger?

22   A. File carving is known within the digital forensics world,

23   it is essentially the -- the act of looking for content and

24   files in what's referred to as unallocated space.

25   Unallocated space is how the file system refers to

1   space on the hard drive that contains data that is not

2   currently in use by a file. When a file gets deleted, the file

3   gets marked as deleted, and the space that the file takes up

4   gets marked as being available for reuse. There is nothing

5   that points to the file, as far as the user is concerned.

6   But a forensic program will be able to see the

7   entirety of that data. The forensic program can essentially

8   sweep through that data, looking for particular indications or

9   particular data sequences that indicate there is a file located

10   at that particular location. And then it is able to carve out

11   or copy out that particular file.

12   Q. Is that how you were able to recover the child pornography

13   contained within that inner encrypted container?

14   A. That's correct.

15   Q. If you can go to the next slide, Ms. Collins.

16   Generally speaking, Mr. Berger, how would you

17   characterize the level of security on the child pornography

18   found on the virtual machine on the defendant's desktop?

19   A. It was a very high level of protection.

20   Q. Can you walk us through the security that was in place for

21   that.

22   A. So the first layer of security was the BitLocker encryption

23   on the D drive. This was tied to the user's Windows password.

24   Once you were successfully in the Windows operating system, you

25   could access the virtual machine which, again, had full disk

1   encryption. You would need to boot the virtual machine and

2   enter in that password. Once the virtual machine was booted,

3   you would need to enter the log-on password for the user

4   account Josh, and that would unlock the file level encryption

5   for the Josh accounts home directory. Within the Josh user

6   account, there was the encrypted VeraCrypt container, the

7   data.bkp that contained child pornography, and within that

8   encrypted container there was the additional data.bkp encrypted

9   VeraCrypt container which also contained child pornography.

10   Q.   What, if anything, did that whole set up tell you about the

11   sophistication of the person who owned that compiled

12   pornography?

13   A.   That there was a very high level of technical

14   sophistication.

15   Q.   Did you identify forensic artifacts identifying who that

16   person was?

17   A.   Yes.

18   Q.   What kinds of artifacts?

19   A.   Artifacts that indicated connections between the virtual

20   machine and the user on the Windows desktop who created the

21   virtual machine.

22   Q.   Were you able to determine who that user was?

23   A.   Yes.

24   Q.   Who?

25   A.   The defendant.

1   Q. As part of your forensic analysis, did you look at what

2   other files were stored together with the virtual machine?

3   A. I did.

4   Q. If you can go to the next slide, Ms. Collins.

5   Which folder was the virtual machine stored in,

6   Mr. Berger?

7   A. It was stored in the documents folder.

8   Q. Let's take a look at that folder again, Ms. Collins, if we

9   could go to slide 58.

10   Mr. Berger, why was it relevant to your analysis to

11   look at other files within this folder?

12   A. It was useful to understand the context of what was stored

13   within the same location as the virtual machine.

14   Q. And what relevance does that have to computer forensic

15   analysis?

16   A. It can help to indicate the owner or the user of particular

17   files based on what other files are stored with the virtual

18   machine. Additionally it is how a user might protect certain

19   portions of their files.

20   Q. How would looking at the surrounding files help you to do

21   that?

22   A. It might give context as to the files that were there. If

23   they seemed to be of importance to the user, and they were all

24   stored collectively in the same location.

25   Q. Generally speaking, what kinds of materials did the

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1   defendant have on his documents folder?

2   A. It appeared to be files that were of personal importance to

3   the defendant.

4   Q. Let's take a look at some examples, if we could go to the

5   next slide, please.

6   Which folder is highlighted in green here on

7   Government Exhibit 608?

8   A. That's a folder named "finance."

9   Q. Let's look inside that if we could go to the next slide,

10   please.

11   Is this a view of that folder, Mr. Berger?

12   A. It is.

13   Q. If you look all the way on the left of the screen, there's

14   a whole series of folders organized by what appears to be year.

15   Did you look in those folders?

16   A. I did.

17   Q. What kind of materials are in there?

18   A. Financial statements relating to the particular year of the

19   appropriately named folder.

20   Q. Looking down at the bottom of the blowup box, do you see

21   two entries that start "2010 federal form" and "2010 Maryland

22   form"?

23   A. I do.

24   Q. Is there a person's name listed in those files, Mr. Berger?

25   A. There is.

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1   Q.   Whose name?

2   A.   The defendant, Josh Schulte.

3   Q.   Let's take an example of one file, if we could go to the

4   next slide, Ms. Collins.

5   What file is shown in the excerpt here from Government

6   Exhibit 609?

7   A.   A file named full_credit_report_ 4_2016.pdf.

8   Q.   Is that the file, the cover page of which is shown in

9   Government Exhibit 596?

10   A.   It is.

11   Q.   Who is that credit report for?

12   A.   Joshua A. Schulte.

13   Q.   Does it contain sensitive personal information, Mr. Berger?

14   A.   It appears that way, yes.

15   Q.   Was that credit report encrypted using VeraCrypt?

16   A.   It was not.

17   Q.   Let's take a look at another example. Ms. Collins, if we

18   could go to page 62.

19   Again, Mr. Berger looking at Government Exhibit 608 on

20   the right. Is this the same documents directory that we were

21   looking at a moment ago?

22   A.   Yes.

23   Q.   What's highlighted in green here?

24   A.   A folder named "legal."

25   Q.   Let's look at that as an example. If we go to the next

1   slide, Ms. Collins.

2   What kinds of files are saved in the legal folder of

3   the defendant's desktop, Mr. Berger?

4   A.   Files pertaining to legal issues. Looks like there is a

5   file named "driving record," a file named "license," a file

6   named "ticket." Something named "Virginia driving record."

7   Things like that.

8   Q.   Let's open up one for an example. If you go to page 64.

9   Which file is highlighted in green here, Mr. Berger?

10   A.   File named license.jpg.

11   Q.   Is that what's depicted in Government Exhibit 598?

12   A.   Yes.

13   Q.   What is that?

14   A.   It appears to be the defendant's Virginia driver's license.

15   Q.   Let's take one last example of what's in that documents

16   folder. If we go to page 65, Ms. Collins, please.

17   Again are we looking at the same documents directory

18   with the VMs folder here, Mr. Berger?

19   A.   We are.

20   Q.   What's highlighted in green on this one?

21   A.   A folder named "school."

22   Q.   What's highlighted in red just below that?

23   A.   A folder named VMs.

24   Q.   If we go to page 66, Ms. Collins.

25   What information is shown in Government Exhibit 613 on

N9c3sch2   Berger - Direct

1   the left, Mr. Berger?

2   A. A directory listing of the contents of the "school"

3   directory.

4   Q. What file is highlighted in green there?

5   A. A file named diploma.jpg.

6   Q. Is that shown in Government Exhibit 597 on the right?

7   A. It is.

8   Q. What is it?

9   A. It appears to be a copy of a diploma issued to the

10   defendant from the University of Texas at Austin.

11   Q. So, if we could go to the next slide, Ms. Collins.

12   Mr. Berger, what if, any conclusions did you draw from

13   the context in which that Linux Mint virtual machine was stored

14   on the defendant's desktop?

15   A. So the virtual machine was stored along with a lot of

16   different personal and important documents that were related to

17   the defendant. The virtual machine was accessed by passwords

18   that were used by the defendant for different types of things

19   like financial services. And the access to the actual child

20   pornography within the virtual machine was controlled by

21   additional passwords.

22   Q. What, if any, conclusions did you draw about the identity

23   of the user of those files from that information?

24   A. That it was the defendant.

25   MR. DENTON: If we go on to the next slide, please,

N9c3sch2   Berger - Direct

1   Ms. Collins.

2   I am happy to keep going. We're also about to start a

3   new part as well.

4   THE COURT: Keep going. Five more minutes.

5   MR. DENTON: Understood.

6   Q. Mr. Berger, in addition to identifying what was on the

7   virtual machine and where it was saved, did you identify

8   forensic artifacts showing how it was used?

9   A. Yes.

10   Q. What kinds of artifacts about how it was used did you find?

11   A. Artifacts indicating that videos, specifically having names

12   indicative of child pornography, were viewed within the virtual

13   machine.

14   Q. Did you also find evidence regarding how frequently the

15   virtual machine was used by the user Josh?

16   A. Yes.

17   Q. Did you identify forensic artifacts regarding where the

18   files that were in the virtual machine had been stored?

19   A. Yes.

20   Q. What, if any, conclusions did you draw from the information

21   you determined about how the virtual machine was used?

22   A. That the virtual machine was used by the defendant.

23   Q. Did you identify anything that the defendant did that

24   limited your ability to gather information about how the

25   virtual machine was used?

1   A.   Yes.

2   Q.   If we go to page 69, Ms. Collins.

3   What did the defendant do that limited your ability to

4   gather information about how he used that virtual machine?

5   A.   The drive that the virtual machine was stored on was

6   formatted on May 5 of 2016.

7   Q.   How do you know that?

8   A.   What we're looking at here is an artifact showing

9   information about the $MFT for the D drive. The MFT is known

10   as the master file table. It is the primary listing files used

11   for a file system. You can think about it essentially as a

12   table of contents that keeps track of every single file on the

13   drive as well as information about where those files are.

14   Q.   What effect, if any, did the defendant formatting the D

15   drive on May 5, 2016, have on your ability to extract forensic

16   artifacts from prior to that time?

17   A.   It would make it very difficult.

18   Q.   Why?

19   A.   Formatting, again, erases that master file table and

20   essentially starts fresh. So any files that were still on the

21   system that were not overwritten could be overwritten at any

22   time. It would make finding them very difficult.

23   Q.   If we go to the next slide, please, Ms. Collins.

24   What is shown here in Government Exhibits 509 and 510,

25   Mr. Berger?

1   A.   We are looking at forensic artifacts for the Linux Mint.vdi

2   file and the Linux Mint.vbox file.

3   Q.   What did these forensic artifacts show?

4   A.   They show information about when the file was created in

5   its current location.

6   Q.   Explain to us what the entries here for created, modified,

7   record changed, and accessed tell you about what happened with

8   that virtual machine?

9   A.   So one of the things that might seem a little odd when

10   looking at this is how the created date is May 5, and the last

11   modified date is May 1st. Of course something would have to be

12   created before it can be modified.

13   But what we're looking at here is the result of how

14   file time stamps are carried over when moving files between

15   different drives. The file modified time stamp is usually

16   carried over when you move from one drive to another.

17   So, in the case of Linux Mint.vbox, the file was last

18   modified on May 1st, 2016, at 11:50 in the morning. Subsequent

19   to that, the file was copied over to its current location on

20   May 5, 2016, at 10:07 p.m. The created time stamp here

21   reflects when the file was created in its current location,

22   where the modified time stamp carries the last time the file

23   was modified from its previous location, if any.

24   THE COURT: And that is where we will stop for the

25   day.

1   So, ladies and gentlemen, a few things. First, I have

2   good news, which is I think we are making very good progress,

3   in part thanks to that stipulation that was read that obviates

4   the need for you to hear directly from various witnesses, and

5   for that reason we're making pretty good progress.

6   I am going to talk to the lawyers about their

7   expectations and where we are. Trials are always a little hard

8   to predict, but I hope to have some more information about our

9   schedule tomorrow. It is possible -- don't hold me to it -- it

10   is possible we will get to summations and deliberations as

11   early as Thursday. That's one of the things I am going to try

12   to figure out. For that reason, I am going to ask you to plan

13   for the possibility I mentioned yesterday, that when it comes

14   to summations and deliberations, I do sometime asks you to stay

15   a longer day to give us more flexibility, because it is a

16   little harder to manage. So I will ask you to prepare for that

17   possibility as early as Thursday. But, I'll be in a position

18   hopefully to tell you more tomorrow.

19   With that, my usual instructions apply. Number one,

20   don't discuss the case with each other or anyone else for that

21   matter. Continue to keep an open mind. You've heard one day

22   of evidence, but you have not heard all of the evidence, you

23   haven't heard the closing arguments, you haven't heard my

24   instructions about the law. So it is very important that you

25   continue to keep an open mind, that you do not do any research

1   about the case. Please be in the jury room by 8:45 tomorrow

2   morning. Knock on wood breakfast will be there for you once

3   again, and we can get started promptly at or just a couple

4   minutes after 9 and make good use of your time.

5   I think you all got a placard that identifies you as a

6   sitting juror. Just a reminder, if you show that to the court

7   security officers when you are coming in, they should expedite

8   you through security and give you priority to ensure you get to

9   the jury room quickly.

10   And also a reminder you should go directly to the jury

11   room. And if you need instructions, ask Ms. Smallman,

12   Mr. Miller or a uniformed court security officer, but no one

13   else, just to make sure you don't talk to anybody involved in

14   the case.

15   With that, get home safely. Hope you have a wonderful

16   afternoon and evening, and we will see you tomorrow. Thank you

17   very much.

18   (Jury excused)

19   THE COURT: Mr. Berger, you may step down. Just be

20   outside the courtroom a couple minutes before 9 in the morning.

21   Thank you.

22   (Witness temporarily excused)

23   THE COURT: Mr. Denton, judging from the slide deck,

24   am I guessing correctly you are a little more than halfway, so

25   about an hour and a half or so to go?

1   MR. DENTON: I think that's right, your Honor. I

2   think there's some parts in the back half that where we'll

3   spend a little longer on individual slides than we have thus

4   far, but I think an hour and a half to two hours is a safe

5   estimate.

6   THE COURT: Defense counsel, whichever one of you is

7   examining Mr. Berger, any estimate on the length of your cross?

8   MR. McMANUS: Probably around 30 minutes, your Honor.

9   THE COURT: All right. And I will ask again in the

10   morning, but at this moment do you anticipate any defense case?

11   MR. De CASTRO: We're still talking about it.

12   Potentially, yes.

13   THE COURT: Can you tell me what it might entail just

14   so I can plan scheduling wise?

15   MR. De CASTRO: The defendant.

16   THE COURT: Okay. And I assume you will discuss with

17   him the pros and cons of taking the stand. And as he knows

18   from the last trial, he didn't have counsel in the last trial,

19   but it is his decision, not yours. But he should obviously

20   confer with you and discuss it thoroughly with you. So you'll

21   do that this afternoon, to the extent you haven't already. Is

22   that correct?

23   MR. De CASTRO: Yes, your Honor.

24   THE COURT: Yes, Mr. Denton.

25   MR. DENTON: Your Honor, that kind of puts a sharp

1   point on something we wanted to raise anyway.

2   I think there have been a number of allusions during

3   Mr. McManus' opening and Mr. De Castro's cross-examination

4   about sort of the non-usage of the virtual machine after

5   May 1st, indicating that it belonged to someone else.

6   As we've discussed after the last conference, there's

7   a great deal of evidence about what happened with respect to

8   the virtual machine around that date that we are not

9   introducing as part of the government's case.

10   Mr. Berger is the forensic analyst who identified a

11   lot of that evidence, who testified about it at the last trial.

12   I think we need to be pretty careful we don't cross lines

13   either in the cross-examination of Mr. Berger, or, more likely,

14   in the testimony of the defendant, that would require us to get

15   into the espionage evidence.

16   We don't intend to do it nor do we intend to meet

17   these allegations with a hand tied behind our back.

18   So again, just wanted to put that on the record as

19   something we've noted as a direction that could become

20   concerning in a hurry.

21   THE COURT: Just to be clear, I didn't hear you to

22   suggest that anything in Mr. McManus' opening already opened

23   the door to that. Just that it raises your concerns.

24   MR. DENTON: No, your Honor. I think there are a

25   number of questions that Mr. De Castro asked of Special Agent

1   Spivack that he was unable to answer. I think those are

2   questions that Mr. Berger would be able to answer. And we've

3   discussed with Mr. Berger what the parameters are of the

4   Court's ruling and the government's intentions here. I expect

5   if he were asked some of those exact same questions, he might

6   look to the Court or to the parties for some guidance about

7   what, if any, appropriate answer he could or should give at

8   that point.

9   THE COURT: And can you be less cryptic and tell me

10   what kinds of questions we are talking about, also so Mr. De

11   Castro or Mr. McManus know and they can tread carefully.

12   MR. DENTON: I think there are some questions about

13   whether the implications of usage were that someone else --

14   that the virtual machine belonged to someone else or this

15   belonged to someone else. I think he would have an explanation

16   for what that is. That was based on some of the evidence

17   introduced at the espionage trial, that the defendant ceased

18   using it after transmitting evidence to WikiLeaks and deleting

19   a whole variety of other evidence on his computer.

20   So, again, we've had the conversations with Mr. Berger

21   about that, and about the fact that that's not someplace we

22   intend to go. I expect, if he were to get asked that question,

23   his first impulse would be to turn to your Honor, sort of see

24   if there was a ruling. There might be an objection or at least

25   a request for a sidebar or conversation about that as well.

1   THE COURT: All right. Well, we'll take it a step at

2   a time and I guess see where it goes. And if the defendant

3   testifies, I think, among other things, given my pretrial

4   ruling, some of the prior convictions are fair game, and that

5   obviously opens the door to testimony about the prior

6   proceeding and prior trial. So, at that point, we're in a very

7   different land. So, I guess we'll take it a step at a time and

8   see where we are.

9   MR. DENTON: Thank you, your Honor.

10   THE COURT: Mr. De Castro?

11   MR. De CASTRO: No. I think the only thing I'd like

12   to say is I don't think I opened any door, and I don't think I

13   hear the government saying I did.

14   THE COURT: Nor do I for the record.

15   MR. De CASTRO: Then I have nothing more to say.

16   THE COURT: Okay. Very good. I think if I'm not

17   mistaken, at least the government exhibit list that I got,

18   which is dated September 9, it appears that everything on here

19   is now evidence.

20   Is that the government's belief?

21   MR. DENTON: I think so, your Honor.

22   THE COURT: Okay. So given that, I don't need a

23   running list. If defense counsel, you have any reason to think

24   otherwise, you can let me know now or first thing in the

25   morning. But as far as I'm concerned, I think it is all now in

1   evidence. And unless there is a new surprise exhibit, that

2   should be the entirety of it. And if there is a new surprise

3   exhibit, we'll have to deal with that and whether it is

4   allowed.

5   Government, you'll confer with defense counsel and

6   redact what you think is appropriate from 2302-R so that's

7   formally in evidence and any member of the public, if they want

8   to, could get those pages. Is that correct?

9   MR. DENTON: Yes, your Honor, we'll have a

10   conversation after this.

11   THE COURT: And obviously to the extent there are any

12   future pages coming that are subject to the same issues, you

13   should deal with those now as well.

14   MR. DENTON: Yes, your Honor. I think we'll discuss

15   how to handle it. It may raise some of the same issues as the

16   child pornography, and we would want the jury to see the

17   original. We'll certainly have the one remaining slide that

18   implicates that redacted and ready to go. Just the mechanics

19   of showing the jury and the gallery, we'll have to figure out.

20   We've done it before. We can do it here, too.

21   THE COURT: All right. And I guess talking about the

22   schedule, if the defendant doesn't testify, and the defense

23   rests immediately, it sounds like we may be done with the

24   evidence as early as 11, 11:30 tomorrow. We obviously need to

25   have a charge conference. So that's one thing.

1   Who is closing for the government?

2   MR. BRADLEY: I am, your Honor.

3   THE COURT: And do you have an estimate of how long it

4   would be? I assume not very long, given we are not dealing

5   with a long trial at this point.

6   MR. BRADLEY: I think that's right, your Honor. I

7   think it would be about 20 to 30 minutes.

8   THE COURT: And Mr. De Castro, you're closing?

9   MR. De CASTRO: I am.

10   THE COURT: Any estimate of length?

11   MR. De CASTRO: I can't imagine it would be longer

12   than the government. The same or less.

13   THE COURT: All right. And Mr. Denton, you are doing

14   the rebuttal?

15   MR. DENTON: Yes, your Honor.

16   THE COURT: I assume quite short.

17   MR. DENTON: We'll see what Mr. De Castro has to say,

18   your Honor.

19   THE COURT: All right. So, you're not going to be

20   thrilled about it, but I think you should be prepared to close

21   tomorrow. If we are done with the evidence at 11 and the

22   defendant does not present a case, then I think I'll give the

23   jury more of a break, but I think we can probably do the charge

24   conference immediately thereafter, and then go into closings

25   after some time for you to get something to eat as well.

1   I don't know if we'll get to deliberations tomorrow,

2   particularly since I did not tell them to be prepared to stay

3   here later than 2:30 tomorrow. But, I think we may as well get

4   it done if we have enough time.

5   If we don't have enough time, that is to say, what I'm

6   not going to do is start summations tomorrow and have them stop

7   in the middle. I think given we are not talking about long

8   summations, at that point it would be better to surprise the

9   jury and dismiss them early from school, so to speak, tomorrow

10   and just start Thursday fresh.

11   But I think bottom line is you need to be prepared to

12   close tomorrow, since I may decide that is what we should do.

13   All right?

14   MR. De CASTRO: That's fine.

15   MR. DENTON: We'll be prepared. I would make the

16   pitch that given the jury is not prepared for a long day

17   tomorrow, that there may be some value to the certainty of

18   saying we would go Thursday morning in any event. But I

19   suppose we'll be prepared no matter what.

20   THE COURT: Good. Anything else from the government?

21   MR. DENTON: No, your Honor.

22   THE COURT: Anything else from the defense?

23   MR. De CASTRO: No, Judge. Thank you.

24   THE COURT: I think if I am able to pull it off on my

25   end, in aid of potentially doing everything tomorrow, I might

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1   share with you the draft charge this evening, so you can look

2   at it tonight, and then that will facilitate our ability to go

3   directly into a charge conference in the event that there is no

4   defense case. Obviously, if there is a defense case, then I

5   think all bets are off, and we'll see what the schedule is at

6   that point.

7   All right. Have a good evening, and I'll see you same

8   time tomorrow. Thank you.

9   (Adjourned until September 13, 2023, at 9 a.m.)

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